

MOTIVATE  
SUCCESS  
TRAINING  
OPTIMUM  
WORK  
INSPIRE

INDIA  
HANDBOOK





Dr. Rajiv Kumar

Vice Chairman, NITI Aayog

डॉ. राजीव कुमार  
उपाध्यक्ष  
**DR. RAJIV KUMAR**  
VICE CHAIRMAN  
Phones: 23096677, 23096688  
Fax : 23096699  
E-mail : vch-niti@gov.in



भारत सरकार  
नैटि आयोग, संसद भवन  
नई दिल्ली-110 001  
Government of India  
NITI Aayog, Parliament Street  
New Delhi-110 001  
NATIONAL INSTITUTION FOR TRANSFORMING INDIA

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### Message

Indian innovators from across age-groups and regions have embarked on an exciting entrepreneurial problem-solving journey. This journey is extremely critical in overcoming the complex challenges we face as a country. It provides an opportunity for India to leverage the potential of its young innovators.

The Atal Innovation Mission (AIM), NITI Aayog is a first of its kind intervention by the Government of India to foster spirit of innovation and entrepreneurship in India. The Mentor India Programme is the linchpin of this ecosystem. The Mentor India Programme, through the Mentors of Change (MoC), acts as the necessary catalyst in unleashing creativity in the minds of our young innovators. It redefines civic duties and gives an avenue for leading professionals from all over the country to constructively engage with the young innovators of India by mentoring them. I have personally seen the dynamic role Mentors of Change play in enabling the innovation ecosystem in India.

I commend the AIM team for coming up with the Mentor India Handbook. I am confident that this would be of great help to other countries, organisations, state governments and institutions that are working on establishing a voluntary mentorship programmes and mentor community. My best wishes to all the Mentors of Change, students and teachers for their efforts, dedication and time in taking this Mission forward.

  
(Rajiv Kumar)





**Shri Amitabh Kant**

Chief Executive Officer, NITI Aayog



**Shri Ramanathan Ramanan**

Mission Director, Atal Innovation Mission, NITI Aayog

अमितभ कान्त  
Amitabh Kant  
मुख्य कार्यकारी अधिकारी  
Chief Executive Officer



भारत सरकार  
निति आयोग, संसद मार्ग,  
नई दिल्ली-110 001  
Government of India  
NATIONAL INSTITUTION FOR TRANSFORMING INDIA  
NITI Aayog, Parliament Street,  
New Delhi-110001  
Tel : 23096576, 23096574 Fax : 23096575  
E-mail : ceo-niti@gov.in, amitabh.kant@nic.in

#### Message

India has inherited an education system where the sole focus has been on the books to move to the next classes. With the Atal tinkering labs established by the Atal innovation mission we are bringing a massive disruption in the education system of India. These labs are equipped with the latest of technologies and our students are now solving the pressing problems of not only India but also of the world. I see our young students becoming serial entrepreneurs in the future and paving the way for a new India.

Our most unique initiative linked to the Atal Tinkering Labs has been the Mentor India program. This program is envisaged to be the largest formal volunteer network for schools in India. The Mentor India program has been clinical in the success of our ATLs across the country. The mentors have been the representatives of Niti Aayog on ground. They have not only been mentoring the students but have also been successful in aligning the school authorities, teachers and the community around to create a perfect ecosystem for an ATL to flourish. Our mentors are not motivated by any reward but are just motivated by the sheer passion to build a new India. I would take this opportunity to congratulate all the mentors who have been a part of this nation-building journey and I feel that these mentors are the true agents of change in India.

It's great to see the AIM team coming up with the Mentor India handbook to celebrate the spirit of this program and to highlight the structure and guidelines of the program.

My best wishes to all the students, teachers and specially the mentors for contributing towards this nation-wide disruptive movement.

  
(Amitabh Kant)

Place- New Delhi  
Dated- January, 2020

आर. रामणन  
R. Ramanan  
Tel : +91 1123042037  
+91 1123096560  
E-mail : r.ramanan@gov.in



मिशन निदेशक, अटल इनोवेशन मिशन  
अतिरिक्त सचिव, निति आयोग  
भारत सरकार  
संसद मार्ग, नई दिल्ली  
Mission Director, Atal Innovation Mission  
Additional Secretary, NITI Aayog  
Government of India  
Sansad Marg, New Delhi

#### Foreword

Atal Innovation Mission (AIM), NITI Aayog has embarked on a strategic nationwide initiative to create, nurture and promote an ecosystem of innovation and entrepreneurship across the country in a holistic manner – across schools, universities and the industry. AIM and Atal Tinkering Labs is a fairly successful initiative with over 4670 operational Tinkering Labs covering 650+ districts in the country and around 10000 to be operationalized during the next 12 months.

It is truly creating a game changing movement in promoting problem solving, innovative mindset in the school students of our country. Wherever I have personally traveled and interacted with students as well as teachers and mentors and principals, online or offline, I have found great energy, tremendous excitement, and a fast gaining momentum of acceptance of its value in the student and teachers and Mentor of Change community and beyond.

Beyond the grants, the ATL program is leveraging the skills, abilities and experiences of dedicated Indian professionals, called *Mentors of Change* – who volunteer their time for on-the-ground activities to engage students and teachers in identifying problems in and around their communities and help in creating innovative solutions leveraging the ATL technologies to achieve the objectives of the program. I greatly appreciate the efforts our MoCs are putting in this regard in a selfless manner towards the noble cause of building an innovative entrepreneurial nation, a 'New India' that all of us are proud of belonging to and which MoCs are helping in creating. The Mentors of Change network is one of the largest such mentoring network for school students anywhere in the world.

We are happy to launch the Mentor India Handbook, which can be used by the existing ATLs and Mentors of Change to improve their operations.

My best wishes to all mentors!

  
(R Ramanan)

Place: New Delhi  
Date: 23/01/2020





**Dr. Ayesha Chaudhary**

Programme Director, Atal Innovation Mission, NITI Aayog

## Preface

Our former Prime Minister late Shri Atal Bihari Vajpayee Ji believed that the future of this country lies in the hands of youth and the Atal Innovation Mission (AIM), named after his legacy, is an effort towards translating his dreams into reality. AIM is a flagship initiative set up by the NITI Aayog to promote innovation and entrepreneurship across the length and breadth of the country. At the school level, AIM is setting up state of the art Atal Tinkering Labs (ATL) in schools across all districts across the country. It is systematically honing young students on crucial 21 century skills including Creativity, Innovation, Critical Thinking, Social and Cross-Cultural Collaboration, Ethical Leadership and so on. The Mentor India Program is built to promote mentoring as a nation building duty for experts across professions.

The Mentor India Handbook is an attempt to capture the three key elements of the mentoring movement in India, that was launched in 2016. First, the application and selection process for identifying potential Mentors of Change. Second, the methodologies for creating a vibrant mentor community by engaging students, teachers, parents, local community members, academic institutions and private industry has been discussed. Some of the successful case studies representing the different regions of India have also been highlighted here. Third, the dedication and commitment of the Mentors of Change in building the innovation and entrepreneurship ecosystem. The Mentors of Change have relentlessly worked to mould young minds and equip them with skills extremely relevant for the 21st century. Constant feedback has been captured from multiple stakeholders to improvise the overall experience of mentoring, and some of the key learnings are being shared here in The Mentor India Handbook.

The attempt is to present an action plan that can provide the basis for a smooth scale up approach for the Mentor India Initiative, through the public-private-partnership and center-state cooperation. The intended audience of the Handbook includes Mentors of Change, school management, ATL in-charges, student innovators, corporate organizations, state government authorities among

several others, each of them having a specific role to play to ensure the initiative reaches its true potential. We hope that the document will also bring on board additional stakeholders towards creating a sustainable approach for mentoring, and shed light on the roles of Mentors of Change in building a 'New India'.

Our former Vice President Shri Sarvepalli Radhakrishnan had once said, "A mentor empowers a person to see a possible future." I would like to thank all MoCs for their time and effort in making ATLs the innovation hubs across the country. It is because of their presence, dedication, collaboration and guidance that the students are empowered to explore, learn and innovate.

I take this opportunity to thank NITI Aayog Vice-Chairman Dr. Rajiv Kumar, CEO Mr. Amitabh Kant and Mission Director Mr. Ramanathan Ramanan, Atal Innovation Mission, for their spirited leadership and continuous support towards making ATL a national movement across India. I also express my sincere gratitude and thankfulness to all members of AIM's Mission High Level Committee, who have been continuously guiding and supporting us towards creating the vision of AIM, and encouraging us at every step in our journey. A special token of thanks to Prof. Tarun Khanna, Ms. Debjaani Ghosh and Mr. R Gopalakrishnan for their constant support and encouragement.

My special acknowledgement to IBM and Network Capital for providing invaluable support in implementing Mentor India across length and breadth of the country.

I would also like to thank the core team members Mr Saksham Saxena, Ms Naba Suroor, Mr Shashank Gore, Mr Vedant Sharma, Ms Swati Rao, Ms Vishnupriya Bijapur, Ms Kavya Bhandari, AIM administration and finance teams for relentlessly supporting the Mentor India program. Ms. Himanshi Gautam, Mr. Ronak Jogeshwar, Ms. Varya Srivastava worked hard and provided invaluable support to me during the framing and scribing of this book and to Ms Sumaiya Yousuf for supporting and editing the book.

This book is an effort towards capturing and showcasing how the Mentors of Change are working at the grassroots in different parts of the country, to help students transform into innovators and develop an entrepreneurial mindset, which will pave the way forward for developing a 'New India' by 2022. So, let us together explore the world of Atal Tinkering Lab and empower our young minds to innovate!

Be the Mentor of Change!

#MentoringForNewIndia



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# CHAPTER 1

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# GENESIS OF MENTOR INDIA



# GENESIS OF MENTOR INDIA

Connecting science, technology and innovation with societal outcomes, will drive strong economic and social progress for India. A whole range of structural reforms are being undertaken to place India on the global map of innovation and prepare the country for the fourth industrial revolution. Strong linkages are being created between academia, government, and industry to create an enabling ecosystem, that not just breeds scientific aptitude leading to innovation, but also nurtures a creative and innovative mindset at a young age, to accelerate growth for a New India.

The traditional Indian education system has not been able to address the fast-changing requirements of the industry, and it was imperative that the school education in India may be redefined with innovation. This book recounts the story of the first of its kind and largest ever government led initiative in the history of India, introduced to disrupt the Indian education system and empower young students with 21st century skills including creativity, innovation, critical thinking, social and cross- cultural collaboration, ethical leadership and so on, and thereby transform the concept of New India into reality. This book is an insight into the process of building potentially the largest voluntary mentorship network to disrupt traditional teaching, and redefine civic duties.

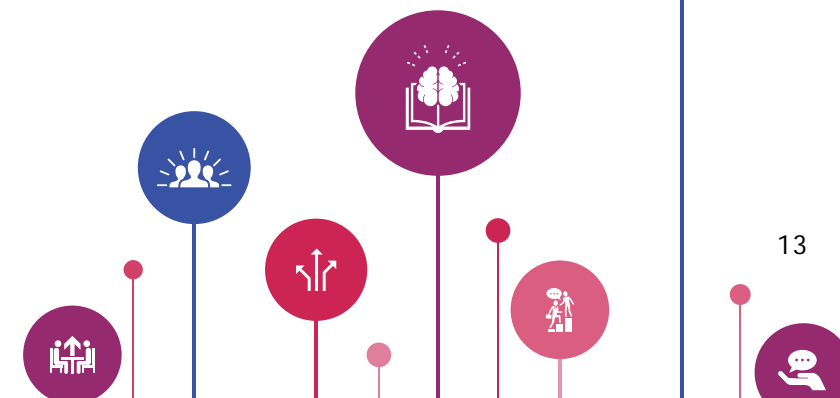
## 1.1 NITI Aayog

The National Institution for Transforming India, also called as NITI Aayog, was formed via a resolution of the Union Cabinet on January 1, 2015. NITI Aayog is the premier policy 'Think Tank' of the Government of India, providing both directional and policy inputs. While designing strategic and long-term policies and programs for the Government of India, NITI Aayog also provides relevant technical advice to the Center and States.

The Government of India, in keeping with its reform agenda, constituted the NITI Aayog to replace the Planning Commission instituted in 1950. This was done in order to better serve the needs and aspirations of the people of India. An important evolutionary change from the past, NITI Aayog acts as the quintessential platform of the Government of India to bring states to act together in the national interest, and thereby fosters cooperative federalism.

NITI Aayog is also developing itself as a State-of-the-Art resource centre, with the necessary resources, knowledge and skills, that will enable it to

NITI Aayog is the premier  
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act with speed, promote research and innovation, provide strategic policy vision for the government, and deal with contingent issues.

#### The prime responsibilities of the NITI Aayog are:

- To evolve a shared vision of national development on priority sectors and develop strategies with the active involvement of states, in light of the nation's objectives.
- To develop mechanisms to formulate credible plans at the grassroots level and aggregate these progressively at higher levels of government.
- To pay special attention to the sections of our society that need special attention to enable them to join the national economic progress.
- To design strategic and long-term policy and program frameworks.
- To create a knowledge, innovation and entrepreneurial support system through a collaborative community of national and international experts, practitioners and other partners.
- NITI Aayog has also been nominated as the nodal agency by the United Nations to monitor, coordinate and effectively implement the 17 Sustainable Development Goals across the country to bring about the desired transformation.



## 1.1.1 Composition of NITI Aayog

A high-level team consisting of the Prime Minister as its Chairman, Governing Council including Chief Ministers of the States and Lt. Governors of the Union Territories, experts and specialists from various fields and the Regional Council work together to achieve the goals and objectives of the NITI Aayog.

## 1.2 Atal Innovation Mission

Atal Innovation Mission (AIM) is a flagship initiative of the Government of India, housed at the NITI Aayog, to promote innovation and entrepreneurship across the length and breadth of the country. AIM under NITI Aayog is envisaged as an umbrella innovation organization that would play an instrumental role in alignment of innovation policies between central, state and sectoral ministries, by incentivizing the promotion of an ecosystem of innovation and entrepreneurship at various levels - higher secondary schools, higher educational and research institutions, and small and medium-sized enterprise / micro, small and medium enterprises industry, corporate, and government ministerial level, by public-private partnership.

Atal Tinkering Labs (ATL), AIM is fostering innovation at school level, wherein students get an opportunity to experience design



The initial focus has been towards creating an institutional framework, to nurture innovation and entrepreneurial mindset. Through the Atal Tinkering Labs (ATL), AIM is fostering innovation at school level, wherein students get an opportunity to experience design thinking and widen their intellectual horizons in pursuit of solutions to day-to-day problems and showcase their innovations at prestigious platforms.

The Mentor of Change (MoC) program is a vast network of volunteered national movement being led by AIM, wherein skilled professionals provide pro-bono mentoring to young ATL innovators, with a strong sentiment towards nation building. AIM's Atal Incubation Centres (AICs) are creating world-class ecosystems for start-ups to flourish, with the required handholding including access to mentoring and investor networks. AIM realised the importance of making innovation a national movement, wherein citizens felt the responsibility to create impact and contributed towards the same. Launched by AIM in collaboration with five Ministries of the Government of India, the Atal New India Challenges (ANIC) provided innovators an opportunity to propose technological solutions in 24 different areas of national importance. Atal Community Innovation Centre (ACIC) encourages the spirit of innovation through solution driven design thinking to serve the society. It focuses on undeserved/unserved regions of the country which at present lack a vibrant startup and innovation ecosystem.

The selected innovations shall receive grant-in-aid along with support for swift productization and commercialisation. And finally, another program, in the final stages of conceptualization, AIM-Atal Research and Innovation in Small Enterprises (ARISE) encourage the Ministries to invest in research and innovation, and thereby accept innovation from small enterprises into the public system, through a comprehensive framework for procurement.

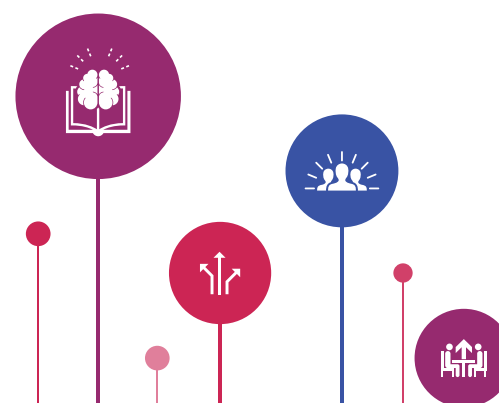
As per the Strategy for New India published by NITI Aayog, AIM shall establish over 10,000 ATLs by 2020



## 1.3 Introduction to Atal Tinkering Lab

With AIM under NITI Aayog, innovation and entrepreneurship have become an integral part of our national mission, and children as young as 12 years of age are being introduced to the world of technology innovation, with Atal Tinkering Lab (ATL) in schools. ATL is the flagship initiative of AIM, Government of India, to nurture an innovative mindset amongst high school students across the length and breadth of India.

The Atal Tinkering Lab program derives its essence from the ancient Indian Gurukul education system and the world's most successful Finish education system, focusing on self-learning methodology, hands-on practical training and exposure to real-world situations. ATL fosters curiosity and lets innovators start young. Students are free to think and explore, try and fail, even come up with something out of the box. The program is designed to equip students with the 21st century skills such as design thinking, critical thinking, computational thinking, digital fabrication, collaboration taking inspiration from the Stanford India Biodesign program, which was an initiative of the Department of Biotechnology, Government of India, All India Institute of Medical sciences Delhi, Indian Institute of Technology Delhi and Stanford University. It will enable India to create a dent in the Global Maker's movement (Dougherty, 2012) and become a global platform for world-class innovation.



ATL is encouraging students and teachers to experiment, explore and follow a self-learning path, thereby empowering them to think differently about problems and develop innovative solutions, by leveraging latest technology tools including 3D printing, internet of things, robotics, miniaturized electronics, space technology, drone technology, technology inspired textiles and so on. ATL is also providing other sections of the community including parents, mentors and other individuals interested in innovation to give life to their ideas. Through frequent community sessions, ATL is shaping an ecosystem wherein every individual can contribute towards finding solutions to day-to-day problems of the society and the country, henceforth creating a strong essence of national service

Under the ATL scheme, grant-in-aid of up to 20 lakh is provided to schools selected for setting up an ATL.

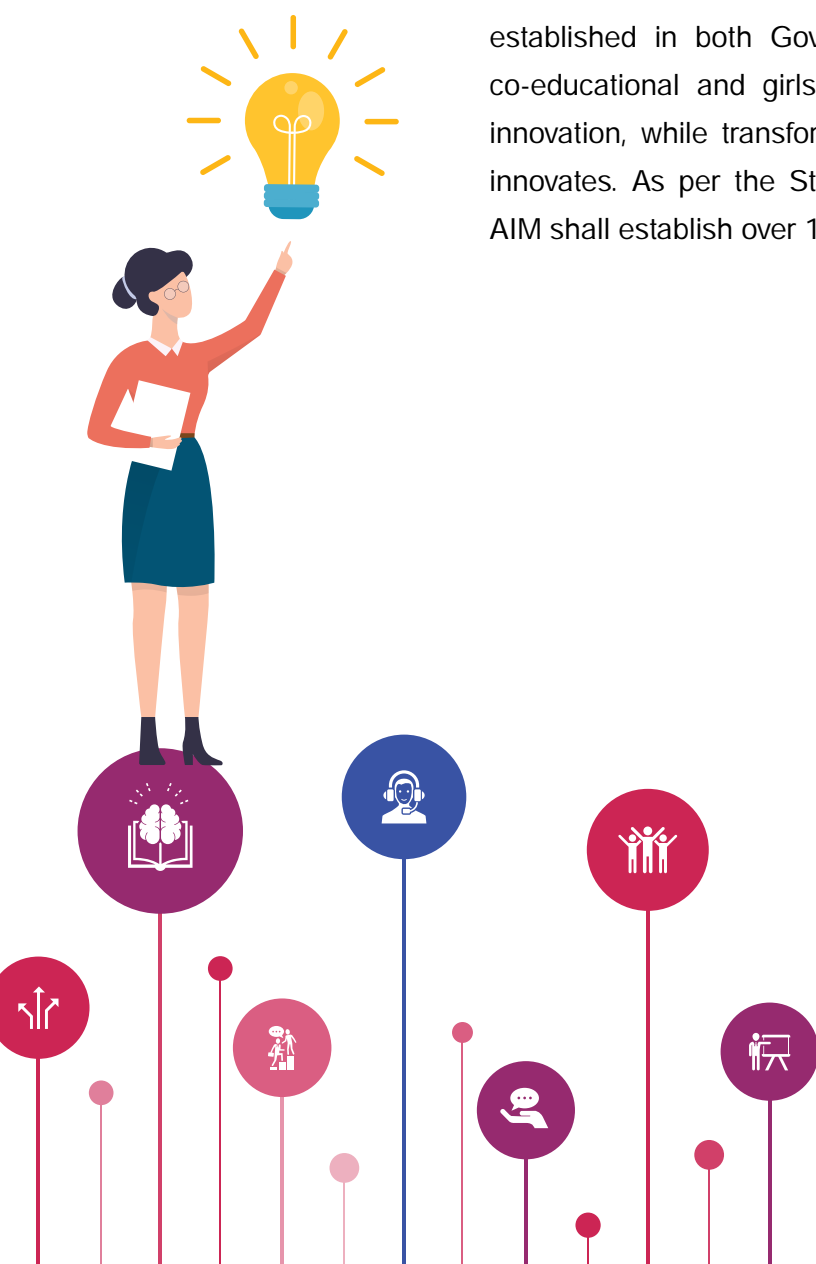
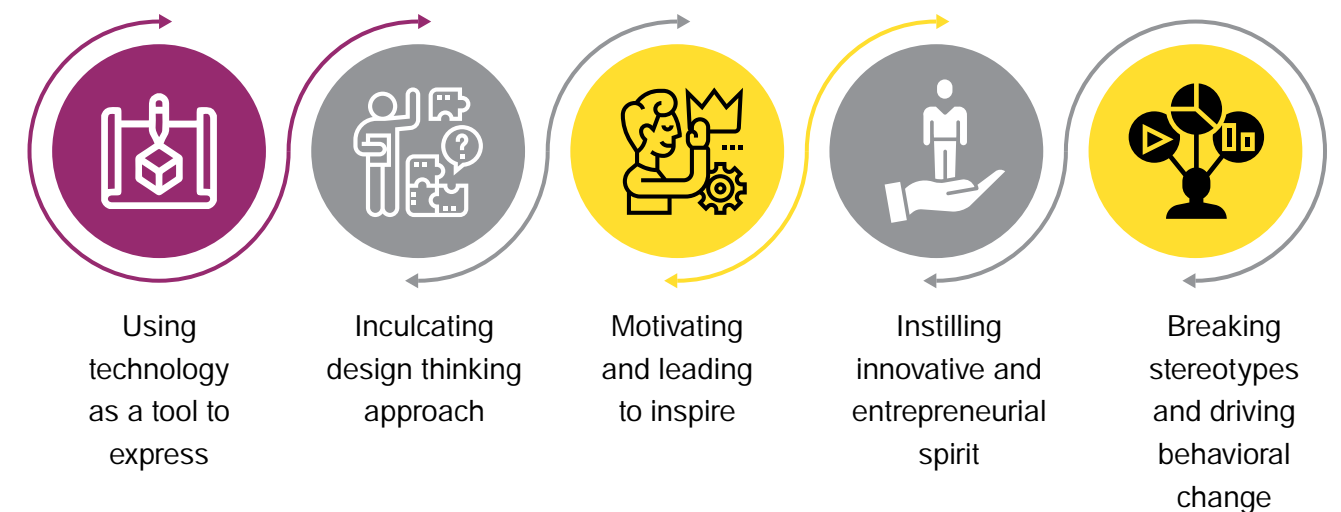
As of January 2020, almost 15,000 schools have been selected to establish ATLs across the country, covering more than 90 percent of all the districts and 110 Aspirational Districts of India. These labs, established in both Government and private schools and majority in co-educational and girls' schools, are serving as community hubs of innovation, while transforming the way India learns, thinks, ideates and innovates. As per the Strategy for New India published by NITI Aayog, AIM shall establish over 10,000 ATLs by 2020.

## 1.4 Mentor India

Mentor of Change Program is a strategic nation building initiative to engage leaders who can guide and mentor students in thousands of Atal Tinkering Labs under the program of Atal Innovation Mission across India. These leaders, whom we proudly call the 'Mentors of Change' spend few hours on-ground with ATL students, who are the young innovators of India and enable them to experience, learn and practice 21st century skills such as human centric design approach, computational thinking, physical computing etc.

These labs are non-prescriptive by nature, and mentors are expected to be enablers rather than instructors.

Possible areas of contribution could be, but not limited to:





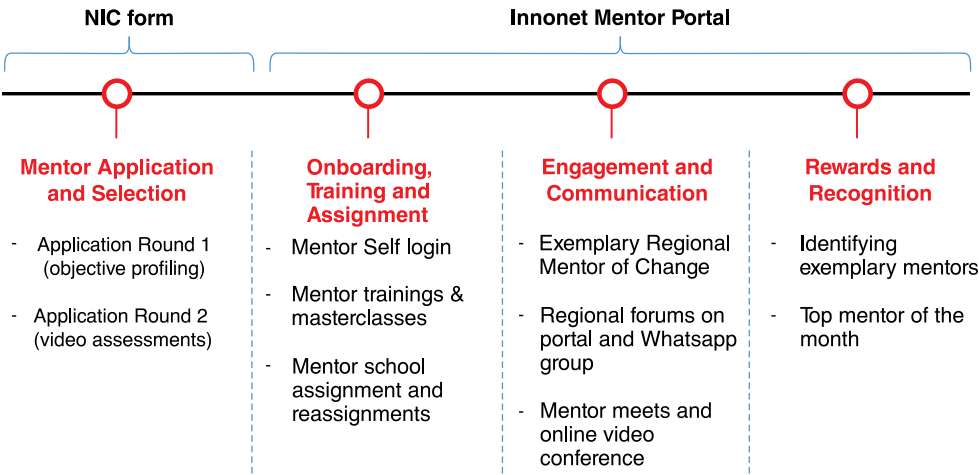
### 1.4.1 Philosophy of Mentoring

In Greek mythology, Mentor was the son of Alcimus and in his old age, he was a friend of Odysseus. Odysseus was the king of Ithaca and he left his wife & infant son to fight with the Greek alliance in Trojan war. He left the guardianship of his family to his friend Mentor, expecting a swift return. Mentor protected Odysseus's son, Telemachus through years of conspiracies against him and his mother, and guided him to defeat the usurpers and reunite with his father. Throughout Greek literature, Mentor is seen as a wise and kindly elder, a surrogate parent, a trusted advisor, an educator and guide. His role in supporting Telemachus involved nurturing, supporting, protecting, role modeling, and possessing a visionary perception of his mentee's true potential. This is seen as demanding integrity, personal investment, and the development of a relationship with the young Telemachus based on deep mutual affection and respect.

Mentor India Program is inspired from the core values of motivation and guidance associated with a Mentor. The Mentors of Change are professionals from all walks of life, who join this movement to build a bond with a community of children, work with them to drive them to their potential, provide incessant guidance and motivation and nurture their creativity and innovative spirit. It is an act in nation building, where the MoCs accompany children in their journey of innovation to prepare these young souls for the future of India. They work with a vision to give back to the country, and play a significant role in building a new India – one which pioneers in technology and innovations and emerges as a world leader!


### 1.4.2 Key aspects of the Mentor India program

1. Corporates (including but not limited to corporations, MSMEs, entrepreneurs, innovators, maker-spaces, NGO partners), Government organizations, higher education institutes, academicians (including applicants from research organizations), students from undergraduate and postgraduate programs are eligible to apply and become a part of Mentor India. The terms of engagement of becoming a part of Mentor India are elaborated in Terms of Engagement section.
2. The selected mentors are expected to provide mentorship within the outlined areas outlined in the Proposed Areas of Mentorship section.
3. The selected mentors will have to follow certain roles and responsibilities which are outlined in the Proposed Roles and Responsibilities section.
4. Selected mentors are to volunteer their time and services strictly on a pro-bono basis. However, Atal Innovation Mission would like to recognize the work done by mentors in various forms as mentioned in the Proposed Recognition for Mentors section.
5. Atal Innovation Mission enables an agency for Mentor India and work with volunteer mentors / corporates / schools to ensure smooth functioning of the program. In order to assess the impact of the program and contribute towards its improvement, Atal Innovation Mission monitors the mentoring activities based on a duly formed criteria and feedback on an ongoing and consolidated basis.
6. Mentor India guidelines, including Terms of Engagement, are subject to periodic review in consultation with concerned stakeholders, and may be modified in future.





# CHAPTER 2



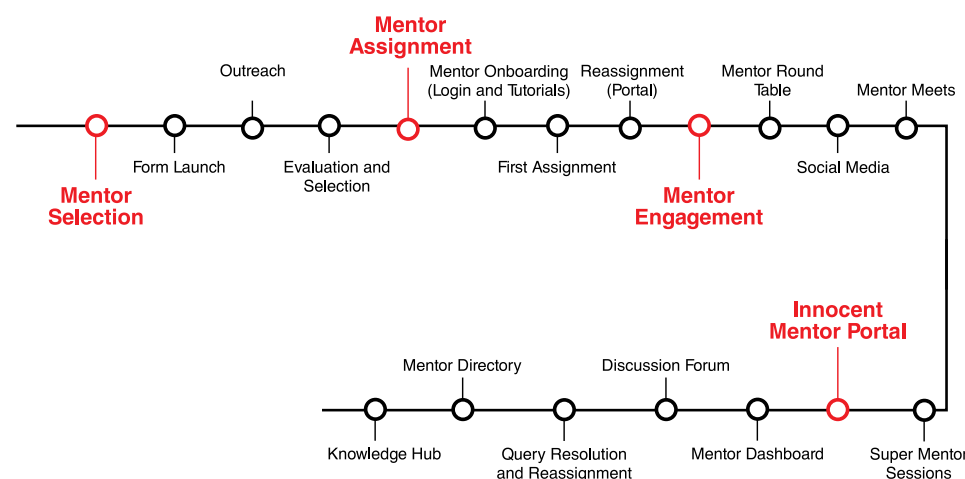
# BEGINNING OF MENTOR OF CHANGE



# BEGINNING OF MENTOR OF CHANGE

The Mentor of Change journey commences with the selection process, by the Government of India. AIM has devised a systematic and rigorous aptitude-driven application, screening and selection process to select Mentors of Change. The prospective mentors shall submit an online application to AIM through a website- based portal.

This is an introductory application that reports their skill-set and expertise, capabilities, intent and availability. Upon the initial screen of the introductory objective application, video responses are requested from short-listed candidates. The video responses are further evaluated for intent and aptitude. After concluding the second stage of screening, as per the AIM-Mentor India guidelines the Mentor of Change begin their innovation journeys.



## 2.1 Selection Process and Timelines

The selection of schools for ATL comprises three distinct stages and the entire process takes around 3-4 months to complete (shown in table 2a).

### 2.1.1 Inviting applications via online application portal

Prospective mentors are invited to submit an online application for the role of a Mentor of Change. The online application portal is a seamless platform developed for mentors to submit their ATL applications. The online application broadly consists of five sections -

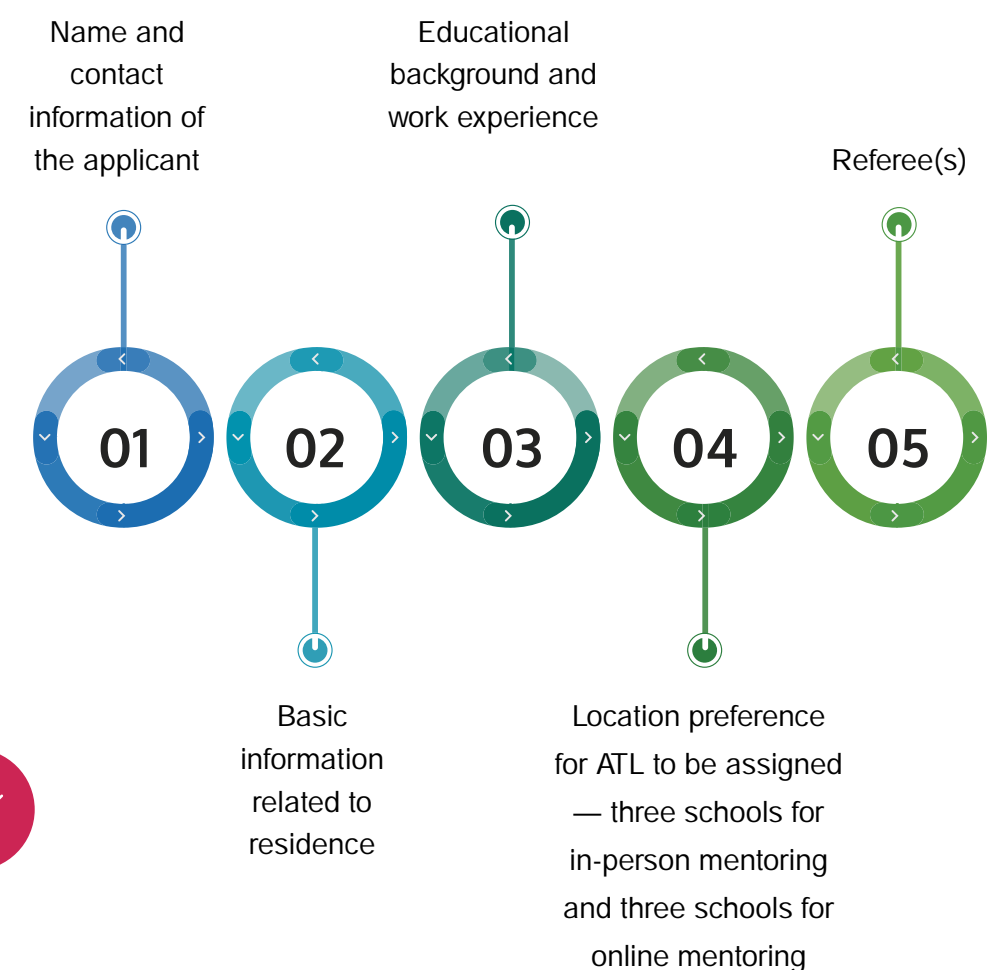
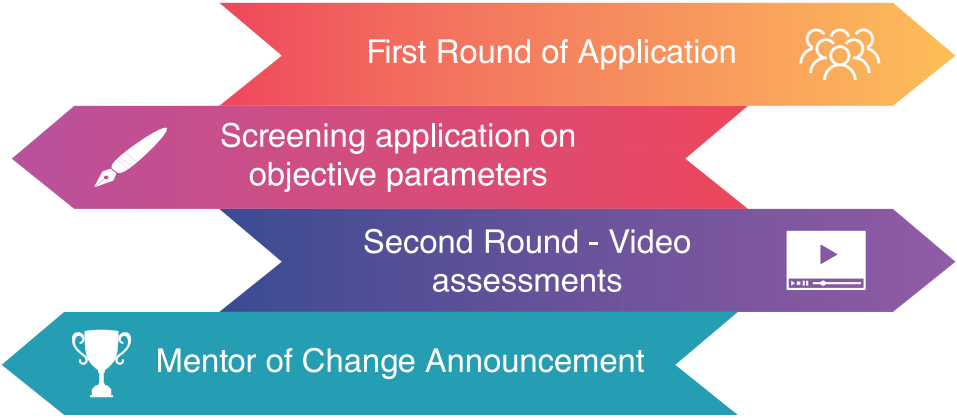




TABLE 2A



Applicants are not allowed to make more than one submission each and they must refrain from furnishing false/ inaccurate information in part or in full. Moreover, submission of applications does not, in any way, guarantee selection.

### 2.1.2 Screening of applications

The selection process for ATL will be in 2 stages- Screening and final evaluation. Received applications would be processed on the basis of eligibility criteria. The general eligibility criteria includes a completion of under-graduation, aptitude for mentoring and ability to give 2-3 hours a week.

### 2.1.3 Final evaluation

After the preliminary, selected applications will be evaluated further for final selection, based on weighted average, on parameters, but not limited to district coverage, knowledge/expertise in science, technology, arts and creative festivals, intent and aptitude. To gauge the aforementioned parameters a video response is collected from the short-listed candidates.

## 2.2 Mentor onboarding and training

Once a Mentor of Change has been selected, they are informed about the same via a mail from the AIM team. They are matched with an Atal Tinkering Lab based on their preferences mentioned in the application form for either online-mentoring or in-person mentoring based on the ATL availability.

### 2.2.1 Mentor Onboarding

Following is a ten-step process that the mentors follow post selection -

1. Connect with School Administration - Upon receiving an email with all details of the School including address, email-id, contact number, the MoC must connect with their school immediately and plan a meeting with the School Principal/ATL In-Charge for a formal introduction.
2. Co-create a Mentoring Calendar - The next step for the mentor is to co-create a Mentoring calendar with the School administration and adhere to



the same. The calendar shall be designed based on the MoC's skill and the commitment made to AIM in your application. AIM also announces a "Monthly Mentoring Theme" to help mentors plan their sessions.

3. Collaborate with School Administration - The Mentor must collaborate with the school administration and help to design the strategy, such that the ATL eventually becomes the community hub of innovation.
4. Registration on Mentoring Portal - AIM, NITI Aayog has developed a Mentoring portal to help the mentors discuss innovation with other mentors, collaborate with them, maintain mentoring records and raise queries. All Mentors of Change are mandatorily required to register and regularly update their profile on the Innonet Mentor Portal.
5. Go through Mentoring Tutorials & Complete your Induction - The Mentors must go through all the mentoring tutorials on the portal before their first session. The tutorials help in the basics of mentoring, while exposing mentors to the type of skills/knowledge required to have to mentor students. These tutorials are also available on the AIM website. Although the tutorial can be viewed/accessed on the website, they need to formally completed on the portal to commence the sessions with the ATL students. Further, detailed information about this is available in the next section of this handbook.
6. Engage with Mentors on the Forum - The mentors are recommended to actively engage and collaborate with the fellow mentors by sharing their mentoring experiences, challenges and resources.

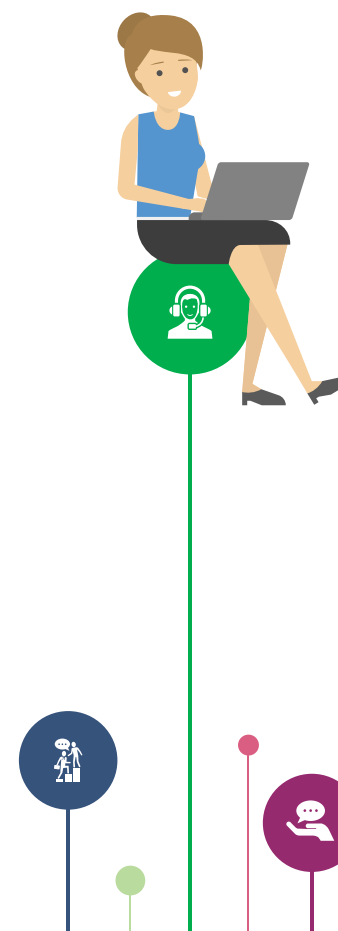
The mentors are recommended to actively engage and collaborate with the fellow mentors by sharing their mentoring experiences, challenges and resources.

7. Conducting Mentoring Sessions – The MoCs are now equipped with necessary information and tools to conduct sessions. Mentors are advised to visit the AIM website under the ATL section. The ATL section contains of various learning modules, which the MoC may use to conduct the sessions. Mentors are advised to visit the do a background research on the topic before conducting the session.
8. Reporting Sessions – It is important and mandatory that the MoCs record and submit their mentoring sessions through the Mentor Portal. Further, to celebrate the contributions of top MoCs, AIM announces "Exemplary Mentors of Change" every month, based on the mentoring sessions reported on the Atal Innonet Portal.
9. Join the Exclusive Mentor of Change Facebook Group - The Mentor of Change are also invited to join the exclusive Mentor of Change group on Facebook - a social media-based platform to share your updates, stories and feedback with other mentors and AIM.
10. Mentor Meets - AIM with its partners organizes regular mentor meetings across India to facilitate exchange of ideas and suggestions for effective mentoring.

## 2.2.2 Mentor Training

Mentor training is an extremely critical part of the Mentor India Programme. The Atal Innovation Mission team actively works towards resources and capabilities to improve the mentor training processes and add value to the experience of our MoCs. Over time, the mentor training programme has evolved to involved varied components that are -

1. Online tutorials – A 5-part online tutorial has been designed and is available on the Mentor Portal as well as at AIM website for the MoCs. This online tutorial contains guidelines and insights for various aspects of the program such as onboarding process, mentoring tips, themes like building the right mindset, encouraging creativity, enabling achievers, learning from mistakes and finally some do's and don'ts from the Mentors.
2. Knowledge Hub – Since the inception of the program, the AIM MoCs have done an exemplary work towards building the innovation culture of our country. The contributions from the MoC are inspiring young tinkerers,



students, their teachers and parents, and their fellow MoCs. Through the Knowledge Hub, AIM consolidates and documents the experiences and best practices developed by the mentors to act as an informal guidebook and training manual for new Mentors of Change.

## 2.2.3 Proposed Roles and Responsibilities

1. For engagement of individual mentors
  - I. In-person mentoring session at least once a week for 1 - 2 hours on an ongoing basis for at least 1 year (typically 40 academic weeks).
  - II. Such sessions will be focused on guiding and nurturing students in Atal Tinkering Labs for problem formulation, finding solutions to common problems faced in day to day life, and finally tinkering on ideas converting them into scalable solutions.
  - III. Reasonable availability to help students on the portal developed for Mentor India, with typical expected response time of 72 hours from the selected mentors
  - IV. Provide support and review specific innovation projects. Give constructive feedback to school management/ individual students to allow further improvement at regular intervals.
  - V. Introduce students to relevant extended communities / networks.
  - VI. Reasonable participation in social media forums organized by Atal Tinkering Labs.
  - VII. Support the school in reaching out to communities in neighbouring areas.
  - VIII. Help the schools to arrange for sessions in the lab in after school hours or in camp mode or during vacations or on weekends (based on mutual availability of selected mentors and students).

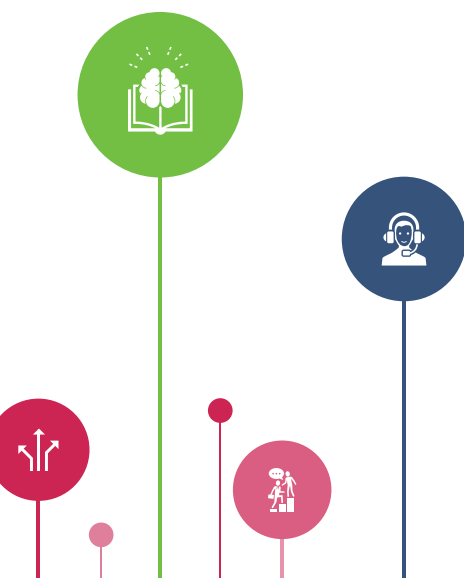
# Tinkering Lab based on their preferences mentioned in the application form for either online-mentoring

2. For corporations / institutions Atal Innovation Mission will work with the corporations / institutions to finalise suitable mode of engagement with Atal Tinkering Labs and Mentor India. All such agreement will be captured in a Statement of Intent duly signed by the corporate / institution and Atal Innovation Mission.

## 2.3 Mentor Assignments and Introduction to ATL

An extremely critical aspect for the Mentor India Programme is to foster a healthy relation between the Mentor of Change, the school (i.e. the Principal and the ATL In Charge), and the students. To enable and support this healthy relationship, we have designed comprehensive plans and tools for the mentor assignment process.

At the time of the initial application, all mentors are asked for their ATL preferences - three schools for in-person mentoring and three schools for online mentoring. Based on the availability and mentor requirement, and mentor preference all Mentors of Change are assigned their initial school through an introductory mail sent by the AIM team.

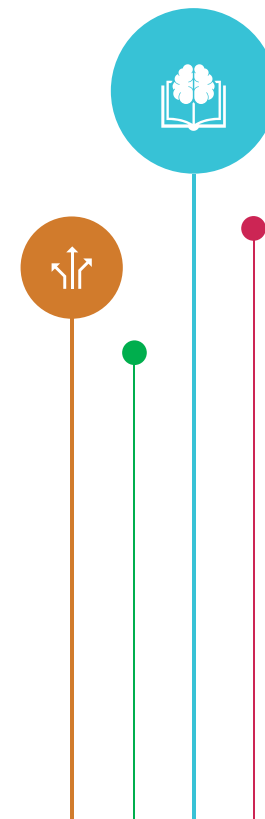


## 2.3.1 Reassignment and Multiple Assignments of ATLs

In addition to the initial ATL assignment, the Mentors also have the option to either -

1. Add more ATLs to mentor, in case they would like to volunteer more time. They can take upto three ATL at a time, and this could be a combination of in-person and online mentoring. The process of adding more schools has been automated on the Mentor Portal. An assignment feature is designed that the mentors can use to add more schools. Once they have selected their new schools and added them to their list of assignments, a mail is sent from AIM, which includes their respective contact details, to both the Mentor and the assigned school to introduce them to one another.
2. Reassign their existing school. In case a mentor, for any reason, wants to change the school they have been assigned, they can simply use the Assignment Feature on the Mentor Portal to replace their existing school with an alternate available school

The interaction and engagement of the MoCs is on a pro-bono basis and no financial engagement will be involved at any level



## 2.3.1 Terms of Engagement for Mentor of Change

For the benefit of the Mentors of Change and the ATLs, Mentor India Programme has issued the following guidelines that regulate the relationship between AIM, the mentors and the schools.

1. Atal Innovation Mission reserves the right to select the mentors based on a rigorous screening and selection process.
2. The proposed mentoring will be finalized by Atal Innovation Mission, in consultation with respective Atal Tinkering Labs, after successful due diligence of the mentors.
3. Allocation of Atal Tinkering Labs for mentoring to selected mentors will be done strictly by Atal Innovation Mission. While utmost effort will be devoted to ensure selected mentors get the Atal Tinkering Labs of their choice, such a choice cannot be guaranteed. Selected mentors will be asked to confirm their adherence to the selected Atal Tinkering Labs. All such confirmed allocations will be considered final and no modifications will be accommodated subsequently.
4. The interaction and engagement of the MoCs is on a pro-bono basis and no financial engagement will be involved at any level from Atal Innovation Mission, any ATL school, student, teacher or any other MoC.
5. The selected mentors are not allowed to promote their products and/or services to the ATL school or inside the ATL school to any student, teacher or parent.
6. The in-person interactions with students will strictly take place inside an Atal Tinkering Labs / school premises only, in presence of an Atal Tinkering Lab In-Charge / designated school teacher.
7. No mentor will be permitted to meet or take any school students outside the school premises without the explicit permission of the school principal and the Atal Tinkering Lab In-Charge.

8. The interaction between students and mentors through the portal developed for Mentor India will also be moderated / monitored for suitability of content and language.
9. The selected mentors will work with the respective Atal Tinkering Lab In-Charge to coordinate on the mentoring sessions. The selected mentors and respective Atal Tinkering Lab In-Charge may use the portal developed for Mentor India for such coordination. Any such coordination / modification has to be informed by the selected mentors 48 hours in advance.
10. The selected mentors will have to dedicate time on a regular basis. The selected mentors are expected to spend 1 - 2 hours per week during / after school hours. Furthermore, an ongoing commitment for at least one year with the school is necessary (will typically involve ~ 40 weeks of academic operations in a year). Selected mentors will have to sign a commitment document to this effect.
11. Selected mentors are also expected to interact with the mentors through the portal developed for Mentor India. These interactions could include supporting and reviewing specific innovation projects, support in innovation competitions, and community outreach. The expected time commitment for such interactions is 30 - 40 hours in a year.
12. The selected mentors will be requested to spread awareness about the program and provide regular feedback to increase the impact of the program.
13. The performance and contributions of selected mentors will be monitored on a regular basis by Atal Innovation Mission. Atal Innovation Mission reserves the right to terminate services of mentors at any point of time without any justification.
14. Atal Innovation Mission and NITI Aayog will not be responsible for the behaviour of the selected mentors. However, selected mentors will be chosen through a stringent selection process which may include telephonic interviews and background checks.

15. In addition, all selected mentors will be to read and sign an Atal Innovation Mission approved child protection policy document and an engagement document before starting their engagement with Atal Tinkering Labs.
16. Safety and security of school students is of utmost importance to Atal Innovation Mission, and hence Atal Innovation Mission reserves the right to take appropriate safety measures in coordination with Atal Tinkering Labs Advisory Committee, local administrative and law enforcement agencies etc.
17. In case of any dispute, the same shall be subject to the jurisdiction of the court of Delhi.







# CHAPTER 3



# BUILDING AN INNOVATIVE ECOSYSTEM IN THE COUNTRY



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# BUILDING AN INNOVATIVE ECOSYSTEM IN THE COUNTRY

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## 3.1 Setting up the ATL

### 3.1.1 Selection Process

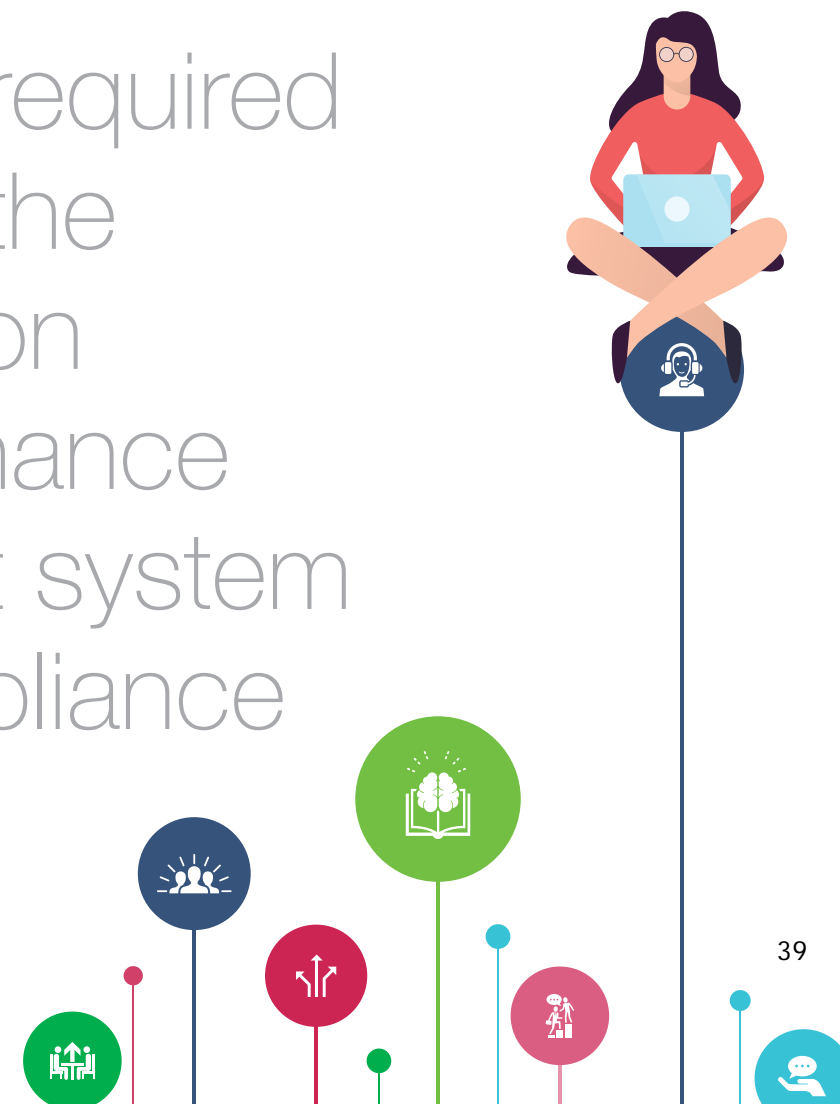
The ATL innovation journey commences with the ATL selection process, by the Government of India. Atal Innovation Mission, NITI Aayog has devised a very systematic and rigorous challenge-based application, screening and selection process to select schools where ATLs shall be established. The

schools shall submit an online application to AIM, NITI Aayog through a website-based portal. The selection of schools for ATL comprises three distinct stages and the entire process takes around 3-4 months to complete.

### 3.1.2 Compliance Process for ATL Grant-in-Aid disbursement

Upon selection, schools are required to complete the documentation and Public Finance Management System (PFMS) compliance process, wherein they submit the mandatory documents on the document submission online portal, as required by AIM, NITI Aayog. Upon satisfactory completion of the compliance, the grant-in-aid is disbursed to schools, and they are required to establish the ATL as per AIM, NITI Aayog guidelines and begin their innovation journey.

Schools are required to complete the documentation and public finance management system (PFMS) compliance process



Once schools finish the compliance process and the grant is disbursed to the schools, Mentors of Change are assigned to the school based on AIM criteria and processes. Mentors of Change are to assist the schools in the procurement of ATL equipment via Government e-Marketplace (GeM) and in navigating the public finance management system (PFMS) portal.

All the PFMS related details can be downloaded here:  
[http://aim.gov.in/pdf/ATL\\_Compliance/PFMS\\_Guidelines.pdf](http://aim.gov.in/pdf/ATL_Compliance/PFMS_Guidelines.pdf)



### 3.1.3 Government e-Marketplace (GeM)

With the goal to create a transparent, fair and robust marketplace for the procurement of various packages of Atal Tinkering Labs, AIM has introduced the Government e-Marketplace (GeM) portal. Schools are instructed to note that all procurement for the ATL packages must be done through the GeM portal only.

No vendor/service provider has been selected/endorsed/enlisted by AIM for ATL procurement.

The ATL schools have been given necessary instructions to operate their gem IDs. Before the disbursement of ATL grant-in-aid, the GeM ID credentials are sent to the School Principal via SMS to the phone number which was submitted in their application. Please note that the phone number must be linked with Aadhar.

On receipt of the credentials, schools are required to follow the steps in the message and activate their GeM email IDs. GeM verification link will be sent to the schools within one week on the email ID. Upon receipt, schools must click on the verification link and check/update their credentials. Post this, schools may freely procure the equipment and services on the GeM portal.

In case of any issue or support, schools may refer the guideline available on AIM website. In case the issue persists, schools can write to AIM on the query resolution portal, describing their query.

Please find the link to GeM resources to understand the procurement process further:

<https://lms.gem.gov.in/>



### 3.1.4 Designing the ATL space

The ATL shall be set up in 1000 to 1500 sq. ft., depending upon the regional location, as per the ATL application guidelines laid down by Atal Innovation Mission, NITI aayog. . The ATL space should be one single room with maximum open space, such that one section could be designated for lecturing and mentoring, while another section could simultaneously be used for collaborative project work. In exceptional cases, two adjacent rooms internally connected to each other could also be used. Safe locking and security systems must be installed for the ATL. The ATL should be located in proximity with the main building of the school. The lab must be arranged so that there is enough space for the movement of students. All documents such as guidelines, instruction manuals etc must be placed at a designated place in the tinkering lab.

Additionally, safety is of utmost importance for both students and teachers. Important safety guideline and etiquettes can be downloaded here:

[http://aim.gov.in/pdf/ATL\\_Safety\\_Guideline.pdf](http://aim.gov.in/pdf/ATL_Safety_Guideline.pdf)



Since, ATL is an open workspace, conducive to innovation, a vibrant branding scheme should be followed, to allow consistency and uniformity in labs, while also maintaining the unique look and feel of each lab.

# SMALL CITY, BIG DREAMS

Getting a good education in a small city has its own set of challenges. The foundation and history of a school in Sonipat, a small city in Haryana, is story of sheer hard-work and inspiration beginning when Shri S K Sharma, a great visionary and an educationist, planted a sapling named Rishikul Vidyapeeth with a hope that it would one day become a boon for younger generations to acquire knowledge, experience, skills and right attitudes that would help them to lead a better life. With the passage of time, that dream gradually



turned into reality as the school currently has achieved the denomination of being one of the premier institutions of India, that attracts students from different parts within and outside the country.

The students of the school have always been budding innovators and identifying their needs, the school applied for Atal Tinkering Lab which was established in December 2018. By providing constant support and guidance to the students, the lab today dons the pride of great success.

In the months following its inception, the excitement of students was at another level. Looking at the excitement of students, school realised that teachers have additional responsibilities to take care of. A dedicated ATL in-charge was appointed for the lab. With the help of the ATL in-charge, the students grew more organized in their innovation endeavours.



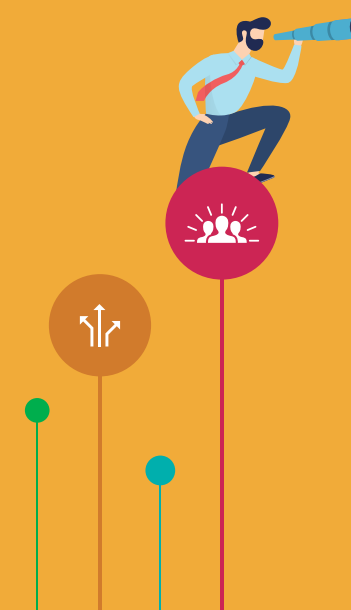
Recently, the school even organised a live session for students on enabling Technology Commercialisation by Professor K Vijay Ragavan, Principal, Scientific Adviser to the Government of India. The students also started participating in various science exhibitions. For instance, the students from the Middle wing prepared and exhibited an automation device.

A summer camp was also organised for students in which they learned about robotics and worked on various ATL tool kits. ATL in-charges planned and utilized the time effectively for students in such a way that their curricular hours were not affected. In fact, the ATL classes are extremely streamlined with their own timetable including lectures and hands-on hours. In this manner students get time to work on their innovations and projects efficiently.

ATL in-charges motivate the students regularly as that is for the success for any ATL. The ATL in-charges even visited Australia with some students to observe Robotics and Chemistry lab at the Burnside State High School, Australia.

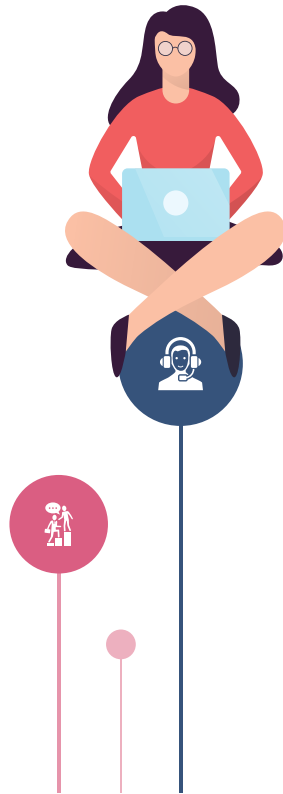
The collaborative efforts of three ATL in-charges and the creativity of students has led the school and its students to a great learning experiences in spite of being housed in a small city.

**ATL In charge: Chanchal Chauhan, Neelam Ahlawat, Amita**  
**School: Rishikul Vidyapeeth Sonipat**

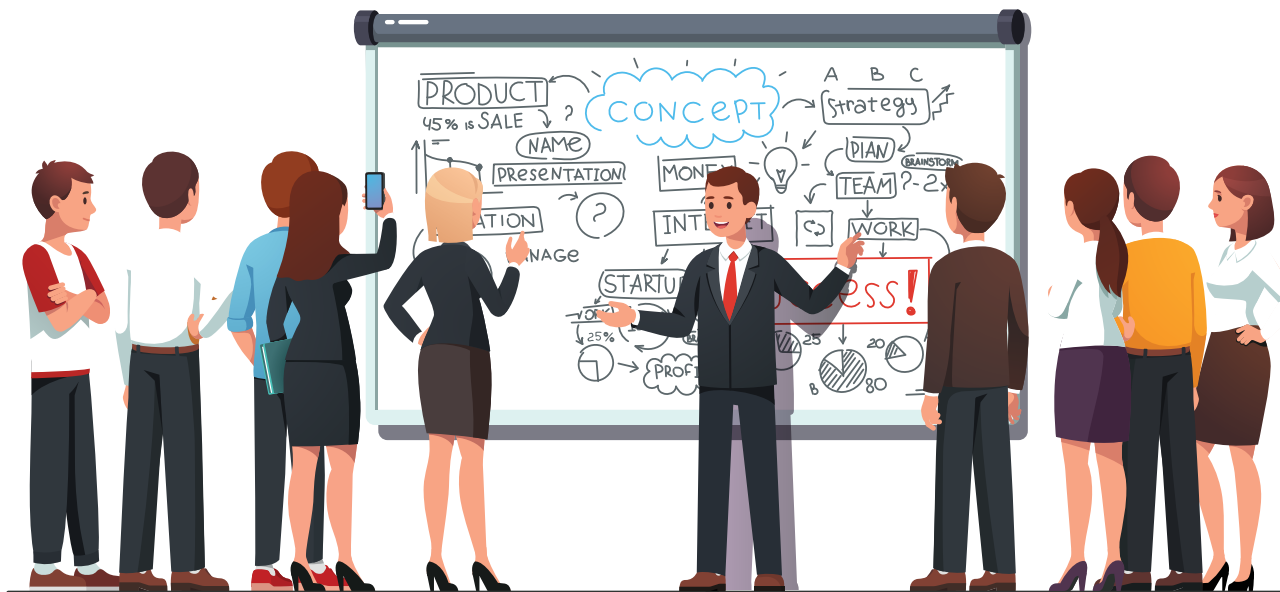




## 3.2 Integrating ATL with school curriculum



Once the ATL is set up and human resources identified, the mentors must help schools draw up a comprehensive action plan for student engagement. This includes devising an ATL timetable and methodology of student enrolment, implementing the four levels of tinkering for the students. The table shown in 3.2.1 illustrates the four levels of tinkering, the kind of students to be enrolled with their respective objectives and timeline. This plan shall be integrated with the school curriculum, in the form of an ATL schedule in consultation with the school management so that students get enough opportunities to successfully move through the different levels, graduating from students, to tinkerers, makers and eventually innovators.



### 3.2.1 ATL Curriculum: Four Levels of Tinkering

Tinkering Level	Students Enrolled	Objective	Session Design	Timeline
<b>Level 1: Pre Tinker</b>	All students from class 6 <sup>th</sup> -12 <sup>th</sup>	Introduction to tinkering, pre-ideation, idea generation and ATL Lab visits	Six sessions of one hour each, allocate 1-2 periods every week	One month
<b>Level 2: Tinker Club</b>	Open to interested students, teachers can nominate, students supported by mentors, collaborative teamwork	Introduction to design thinking, digital literacy, computational thinking with Do-It-Yourself activities, make students tinkerers	Two sessions of one hour per week or one session of 2 hours per week	Two months
<b>Level 3: Tinker Lab</b>	Open to interested and selected student 'Tinkerers', teachers can nominate, students supported by mentors, collaborative teamwork	Introduction to physical computing and building real time projects, make students makers	Can be determined by the ATL-in-charge and/or Mentors of Change	Three months
<b>Level 4: Post Tinker Lab</b>	Self-driven students interested in working on real life projects with guidance from mentors, collaborative teamwork	Encourage motivated students continue to solve real world problems, ATL-in-charge and mentors guide, make them innovators	Can be determined by the ATL-in-charge and/or Mentors of Change	Can be determined by the ATL-in-charge



# JOURNEY OF ATL STUDENT INNOVATOR TO MENTOR OF CHANGE

Sarthak Lamba, ex-student from ATL Government Model Sr. Secondary School, Chandigarh and Mentor of Change for Chandigarh region is a motivated individual, who understands that ATL Alumni are extremely important partners in ensuring the success of the ATLs. Sarthak started his ATL journey in 2016, when his school team presented their work at the ATL selection event. Due to the amazing performance by the team, the school was qualified for the ATL grant-in-aid. Since then, the team has been working relentlessly in the ATL, building capacities for the students, teachers and local community.

Sarthak with his team members – Sanchashk and Ayan, addressed the issue of young working mothers who were struggling to manage and balance their professional life with motherhood. The team created an IoT based incubator which monitors necessary vital stats and the and the behavior of newborns. This innovation was qualified as one of the Top 10 innovations at Intel's Innovation contest.



After graduating from school, Sarthak joined an engineering college in Chandigarh to pursue his dream of becoming the best 'Semiconductor Innovator'. Further, with the goal of creating more innovators like him in the community, he joined the Mentor of Change program and started mentoring several schools in Chandigarh region.

"Chandigarh is a Tier-II city, where access to makerspaces is limited. I want my city to become the next innovation hub of India, and this can be only achieved if I share my learning and experiences with my fellow students"

He then collaborated with the Chandigarh UT authorities to conduct a Capacity building workshop for the PGT/TGT teachers on ATL skills and technologies such as Design Thinking, ideation, prototyping, etc.

The MoC has created a team and divided them into three groups viz. aerospace, 3D printing and robotics and the group collectively is now working with five ATL schools of their community.

Till date, Sarthak has conducted more than 20 mentoring sessions for students and 3 Capacity building workshops for teachers.

He envisages to build a strong community of Innovators and Mentors and which could positively impact the lives.



## 3.2.2 ATL Annual Calendar of Activities

To regularly engage the schools with ATL activities and events, AIM has created a yearly calendar for ATL activities. ATL schools can use this calendar to plan their ATL activities in advance

The ATL Annual Calendar of Activities can be found here :

<https://aim.gov.in/pdf/ATL-annual-calendarof-activities.pdf>



## 3.2.3 ATL Community Day

ATL Community Day is a special event where young minds from the community come together and celebrate tinkering, learning and innovation. This is a day to celebrate inclusiveness in the community through innovation, an opportunity for everyone to come together and solve problems using the ATL infrastructure. ATL school students and teachers organize a full day of tinkering activities for non-ATL and community children, especially those who have not been sensitized about the ATL and/or did not yet have an opportunity to tinker at these labs. The Mentors of Change should play an active role in planning, organizing and inviting children from nearby schools and community into the ATL ecosystem to embed innovation in their DNAs.

AIM has created the ATL Community Day booklet, which guides the school to successfully conduct the community day. The booklet also contains some ideation activities which can be conducted during the event.

The ATL community day booklet can be found here :

[https://www.aim.gov.in/pdf/ATL\\_Community\\_Day.pdf](https://www.aim.gov.in/pdf/ATL_Community_Day.pdf)



## 3.2.4 ATL School of the Month Challenge

ATL School of the Month (SOM) Challenge is an opportunity for ATL schools to utilize the different resources and modules provided by AIM, NITI Aayog to propose innovative solutions to theme based problem statements. The challenge follows the learn-by-doing philosophy, and the competitive spirit helps to bring out the best from each of them. is a competition where ATL schools go head-to-head, with the aim to create the best innovation prototype using the theme of the challenge. The schools which successfully complete the challenge are felicitated and featured on the official AIM, NITI Aayog website and Social Media handles. SOM winners are also eligible for exciting prizes from AIM, NITI Aayog's partner organisations.

The 4th edition of SOM challenge organized by AIM was themed on leveraging Drone technology to contribute towards achieving sustainable development goals. The winning schools got recognized for their outstanding innovations and the students were awarded with prizes sponsored by AIM partners and were recognised on a national level.

## 3.2.5 ATL Tinkering Festival

Tinkering in schools is now becoming a nationwide movement, and the Atal Tinkering Festival usually known as Tinker Fest allows children to unleash the entrepreneur within during their summer vacation. Students are encouraged to keep their boredom aside this summer break, and prove it to their family and to the world, that they can become a Student-preneur or a Student-maker while being at home. A wide range of skills nurturing entrepreneurship, creativity and innovation are inculcated during the festival, benefitting the ATL students in their pursuit of excellence.

The ATL Tinker Fest organized by AIM is a series of activities for students across the country to showcase their creativity during the final exhibition at the 48 hour Tinker Fest. The tinkering festival should be conducted in 2 phases viz. Phase 1- Student Exploration at Home or outside ATL and Phase 2- 48 Hour Tinker Fest at ATL. All ATL schools selected across India are required to conduct Tinker Fest. Over 200 students from each ATL across India participated in ATL Tinker Fest 2019.



The ATL Tinkerfest booklet can be found here :

[https://aim.gov.in/pdf/ATL\\_Tinkering\\_Festival.pdf](https://aim.gov.in/pdf/ATL_Tinkering_Festival.pdf)



### 3.2.6 ATL Marathon

The ATL Marathon is a nationwide challenge revolving around the areas of national importance. The Marathon is an uplifting opportunity for young innovators, not only to showcase, but also to take their idea to prototype and further to a minimum viable product via the opportunities given to the Marathon Winners. The schools are expected to submit working proof of concepts or prototypes of the innovation solving a problem statement, as part of their final submission. The selected innovations are further refined with prototyping support facilitated by the school in the ATL lab. The ATL Marathon including application stage, evaluations, announcement of top innovations and the concluding student innovator program has a total duration of 11 months.

## 3.3 Engaging local community and non-ATL schools

The community plays an important role in the successful implementation of the ATL as the local hub of innovation. Parents, students from the community, non-government organizations (NGOs), volunteers, and government bodies can make a significant contribution towards providing support and creating awareness about the ATL innovation activities. Combined efforts

would determine how the ATL is able to reach its true potential and a few recommendations include the following:

1. Orientation sessions for parents and students outside ATL school
2. Collaboration with local NGOs, community centers, volunteers to reach out to the extended community
3. Seeking assistance from local government bodies to identify meritorious students

## Leveraging content and resources from AIM, NITI Aayog website

AIM, NITI Aayog provides a rich repository of content and resources on its website, for ATL schools to learn from and implement for a successful implementation of the initiative. The content includes videos, documents, and other hand holding material significant for the ATL in-charge to conduct the ATL activities and sessions, in accordance with the AIM, NITI Aayog guidelines. Furthermore, given that ATL schools are spread across the length and breadth of India, all ATL related content shall be published in English and other official/local languages for a higher reach and more awareness. The ATL In-charge can go through the resources by logging on to the AIM website, clicking on the Atal Tinkering Lab and selecting ATL Curriculum from the dropdown menu or by clicking on the link given below.

Resources for ATL Incharge link :

<https://aim.gov.in/resources-for-atl-incharge.php>





## 3.4 Information Management - MyATL Dashboard

MyATL Dashboard has been created for the purpose of accumulating ATL School's details such as school's general information, details of the ATL Advisory body, partnership related information, information about the Mentors of Change associated with the school and information of the student ambassador and for submitting ATLs monthly reports which would help AIM, NITI Aayog recognise the ATLs present performance, participation in regional, national or international events & competitions and achievements and determine the suitability of the ATL for the next tranche of grant disbursement. It is mandatory for all ATLs to submit their monthly reports.

To make the process of setting up school's account and information maintenance on the MyATL Dashboard, we have prepared a step by step video for assistance:

<https://aim.gov.in/atl/>

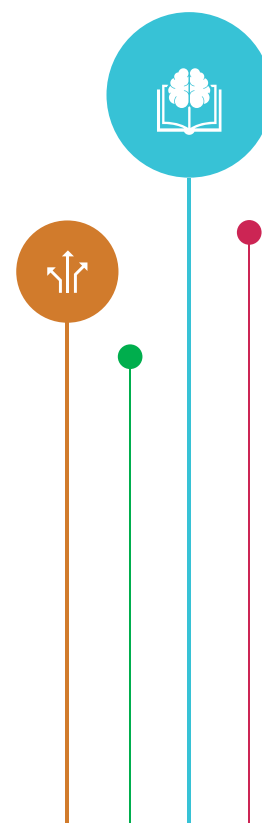


MyATL Dashboard has been created for the purpose of accumulating ATL School's details such as school's general information

## 3.5 Collaborating for an Impactful Atal Tinkering Lab

Several corporate partners support AIM under NITI Aayog in running ATL. AIM's partners including Intel, IBM, DELL, Learning Links Foundation, FICE, KPIT, Microsoft, Network Capital, SAP, Stratasys, tGELF, AICTE, Workbench projects, Maker's asylum, T-Works, Encube Labs, The Better India and several others have demonstrated their support and commitment towards strengthening the ATL ecosystem and making it a successful nationwide intervention. They have together adopted hundreds of ATLs, across the length and breadth of India, and are actively supporting the ATL mission. They strengthen the ATL ecosystem by who collaboratively extend support in the following areas:

1. Organising workshops: Workshops on different themes for ATL students are frequently organized by AIM's corporate partners, which help students better understand innovation.
2. Mentor programs: Partners conduct mentoring programs during which experienced professionals spend time with the young innovators, helping and advising them on furthering their innovative ideas.
3. Training sessions: AIM's partners organize the Teachers' Training Program in different ATL schools, to educate the ATL-in-charges on the ATL mission and impart hands-on learning on the different equipment that the lab houses.
4. Setting up ATL in some schools: Several partners have recently partnered with AIM to help set up ATL in schools. They work with the School principal and the ATL-in-charge on the action plan, student enrollment, financial management and so on to expedite the ATL innovation journey.
5. Providing human resource: A few AIM partners also provide trained, dedicated human resource to ATL, helping the school in creating a good innovation ecosystem. AIM works closely with all its partners to ensure they work in cohesion such that the ATL essence is preserved, while maintaining homogeneity in the outcomes desired to be achieved.



# CHAPTER 4

# BUILDING A VIBRANT MENTOR COMMUNITY





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# BUILDING A VIBRANT MENTOR COMMUNITY

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The Mentor India Programme is part of a larger government initiative to create a dynamic innovation and entrepreneurship ecosystem in the country. Within this ecosystem, the Mentors of Change act as catalysts that enable the required change. Within this context, the Mentor India programme is designed to create a nationwide community of Mentors. A community of Mentors that actively work to bridge knowledge, community and support gaps in the larger Atal Innovation Mission.

After being selected as a Mentor of Change are two competitive rounds of selection, the primary point of contact and interaction of a Mentor of Change is their assigned school. To broaden the levels and scope of engagement, and make mentoring a value-adding and rewarding experience various initiatives have been conceptualised and initiated by the Mentor India Team.

## 4.1 Online Engagement

The sheer scale of a national programme like Mentor India is massive. At present the Mentor India community has over 3200 MoCs, and by the end of 2020 we aim to have more than 20,000 MoCs. In a community of this scale, maintaining effective means of communication and information dissemination is of critical importance. Keeping these things in mind, the Innonet Mentor Portal was designed.

### 4.1.1 Innonet Mentor Portal

The Innonet Mentor Portal is a comprehensive platform that enables knowledge sharing, communication, and fosters collaboration. The Mentor Portal is a virtual representation of the Mentor Community of India.

<http://atlinnonet.gov.in/login/index.php>



NITI Aayog is the premier  
policy 'Think Tank' of the  
Government of India



To make the Innonet Portal accessible and useful, the following features have been built into the portal

**1** Session Reporting - The Innonet Mentor Portal is the complete repository of all the mentoring sessions that have taken place under the Atal Innovation Mission. After each session, the MoC is required to upload the details of the sessions they conducted and share photographic evidence for the same. Furthermore, in addition to being a record-keeping tool, the session reporting feature is a critical part of the monitoring and evaluation mechanism. The session reports submitted by the mentors are used by the Mentor India team to review existing initiatives and design new ones.

**2** Assignment Feature - After the initial assignment given to a MoC, we noticed major requests from the MoCs - to assign more than one school and to reassign the given school. To automate and streamline the process of school assignments, an Assignment Feature has been developed on the Innonet Portal. This feature allows one Mentor to select up to 3 schools at a time and change their schools.

**3** Know Your Peers - As a part of mentor community engagement, the Mentor India team had been hosting multiple Mentor Meets in various regional across the country. A crucial feedback received through these mentor meets was to make knowledge of regional mentors available online to facilitate local level communication and collaboration. To do this, a Know Your Peer feature has been developed on the Innonet Portal, through which mentors can see the details of all their fellow MoCs. Know Your Peers acts as an extensive directory of all Mentors of Change.

**6** Mentor Training - The mentor training programme has been developed in a way that it has multiple components. The mandatory parts of the Mentor Training have been added onto the Innonet Portal in the form of tutorials. It is mandatory for the MoCs to complete all five tutorials before they can start their mentoring sessions.

**7** Knowledge Hub - This is the latest feature being added to the Innonet Portal. The Knowledge Hub has been conceptualised as a compendium of all insights, experience and best practices of being a Mentor of Change and a repository of all technical knowledge and expertise from within the mentor community. All this information is collated in written and video formats, and is a crucial part of the Mentor Training.

**5** Query Resolution - To redress technical and programme related concerns of MoCs, a query resolution system has been developed on the Innonet Portal. Through this query resolution system, the Mentors can raise tickets of any question, concern or issue they face. All queries are responded to within 36hours.

**4** Discussion Forum - To enable dialogue and conversations, a dialogue forum has been built into the Innonet Portal. Through the discussion forum, MoCs have a platform to effectively and safely communicate with one another.

## 4.1.2 Mentor of Change Facebook Group

A closed Facebook group has been made for the MoCs to make online interaction amongst Mentors of Change more accessible. On this group, like the Innonet Portal, the Mentor India team works to facilitate discussions and conversations, and enable exchange of ideas and brainstorming sessions. Joining this group is non-mandatory. Regular updates and information is also disseminated via the group.

## 4.1.3 Regional WhatsApp Groups

To connect MoCs of a particular region to one another and foster local collaboration and interaction, state-wise regional WhatsApp groups for the mentors have been made. Joining this group is non-mandatory for the mentors, and is simply for convenience of establishing regional networks.

# 4.2 Regional Mentor of Change

In addition to the challenges of enabling effective communication and streamlining knowledge sharing, there also exists a challenge of decentralisation and delegation of roles and responsibilities. The decentralisation and delegation is crucial to help mentors take ownership and responsibility of the Mentor India programme and make it their own. To do this, the role of a Regional Mentor of Change has been designed.

A Regional Mentor of Change is an MoC who has shown remarkable interest and initiative in the programme, identifies themselves as a team-builder and leader, is innovative in their problem solving approach and is passionate about the programme. Following criteria were used to select these Mentors:

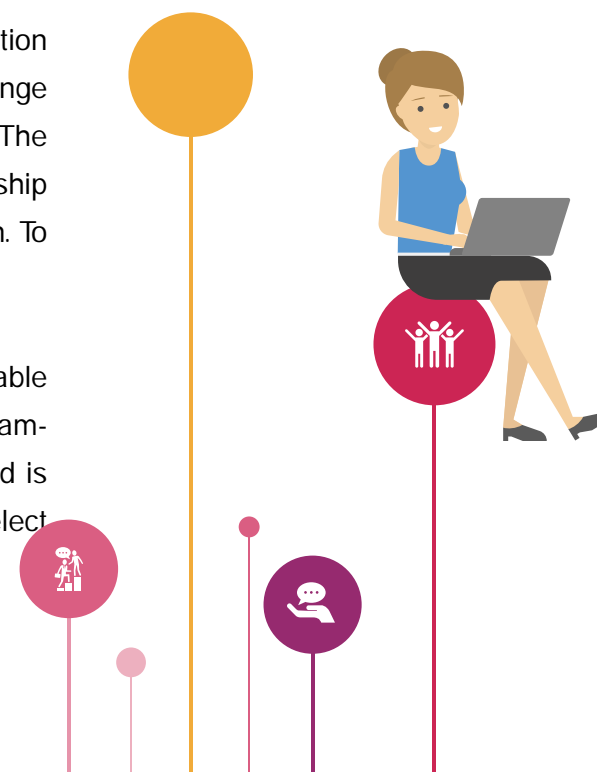
- Innonet Portal Session Reports
- Overall engagement with the program via social media, website, mail and portal
- Interaction with AIM Team
- Mentor's interest level and readiness to engage with the program and take initiatives

Video responses were collected to following questions:

- What makes you the right candidate to be a Regional Mentor of Change?
- As a Regional Mentor of Change, what additional initiatives would you take on ground to build a vibrant and enthusiastic community of mentors?
- How will you address the challenges that will come up during your interactions with the Mentors of Change, to maintain the motivation of the community?

## 4.2.1 Role and Responsibilities

- Go through 1-day long Mentor Training that shall be organized at NITI Aayog. This is a comprehensive training that would equip the mentors with all the required knowledge to perform their role of a Regional Mentor of Change.
- Become certified Mentor Trainers and train other Mentors of Change. Post this, they would be required to host regional mentor training in their respective regions to facilitate knowledge sharing and information dissemination.
- Organize and coordinate regional mentor meets. These Regional Mentor Meets would be networking and brainstorming sessions for mentors of a particular region to effectively collaborate in their mentoring roles.



4. Organize timely catch ups with the MoCs in their respective region and share consolidated feedback/suggestions with NITI Aayog.
5. Guide and assist Mentor of Change community with their sessions. They would actively assist mentors of their respective region in overcoming challenges they face in their mentoring session.
6. Become ambassadors for the programs challenges, innovation events and mentoring themes.
7. Any other responsibility may also come up as the program evolves.

## 4.2.2 Mentor Meets

Regional Mentors of Change actively collaborate with the Atal Innovation Mission team to host regional/city-wise mentor meets. These mentor meets are designed as informal events for mentors to collectively brainstorm and build local community ties. While there is no set format for these meets, the general aim is to enable the MoCs to collectively build the innovation and entrepreneurship ecosystem.

In the past, MoCs have used these mentor meets to coordinate their mentoring sessions and share their area of expertise and knowledge. This has also helped nurture a close ties amongst the MoCs. Furthermore, it has proved to be an effective way to build and improve local communities. The MoCs have used these mentor meets as a platform to leverage ATLs in solving regional community problems through innovation. These Mentor meets are lead by the respective RMoCs, and are supported by AIM.

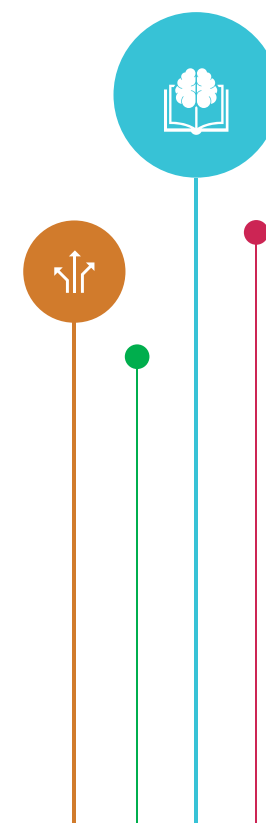


Bangalore Mentor Meet

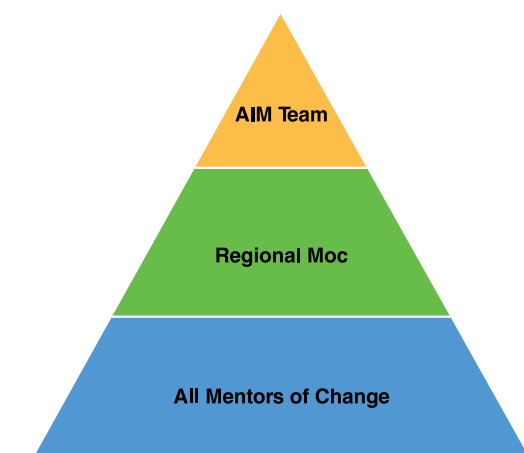
A Regional Mentor of Change is a MoC who has shown remarkable interest and initiative in the programme, identifies themselves as a team-builder and leader

## 4.3 Monthly Mentoring Theme

To maintain consistency in the mentoring themes and domains, and to help MoCs plan their sessions in the ATL over and above their regular curriculum, AIM provides Monthly Mentoring Themes. Through these themes we hope to enable overall development of the ATL students including technological development, intellectual property, 21st century skills, while shaping the ATL as the community hub of innovation. Additionally, these themes are identified with the aim of creating and driving tangible social impact and innovation. The theme is announced through an email to all mentors and on the Facebook group, where mentors also engage in discussions around the theme.



### COMMUNICATION FLOW





# LIFE'S TRUE CALLING

Over the last 18 months I have been mentoring students at the ATL, I have developed a special bond with many of the students. The students are so eager to see me every week that some of them come running to the school gate to greet me as soon as I step inside the premises. Every one of my mentoring sessions have been exciting, involving and inspiring and fun. I have always had a packed session with at least 25-30 students in attendance. Once I start the session with students, we then don't look back. It is only the tinkering that we care about. It is both learning and fun at the same time. Even after concluding my mentoring sessions, there are many students walk with me upto the gate to discuss and ask for suggestions. I enjoy every moment of my visit to the ATL. I am very happy to say that I have been able to contribute meaningfully and positively in a small way to the development of creative and innovative abilities of young minds who are going to drive this nation in the years to come.

As they say "Necessity is the mother of invention", the mentoring experience has made me more creative and innovative in addressing the myriad challenges faced by me in mentoring students, as well as by my student innovators in their innovations.



Most importantly, the mentoring opportunity at the ATL has given me a larger purpose in life beyond my career and personal life. As the days go by, mentoring increasingly seems to be my life's true calling. The more I engage in it, the more I feel the passion for it. Every single mentoring engagement excites me and I never tire in the process. There is nothing more satisfying than sharing one's knowledge and experience with young minds, nurturing their talent over time, and ultimately seeing them take flight with their ideas & dreams.

**Kiran Kumar HS**

Mentor of Change, Air Force School, Hebbal, Bangalore  
Exemplary Mentor of Change and Regional Mentor of Change







# CHAPTER 5



# CELEBRATING MENTORING FOR NEW INDIA



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# CELEBRATING MENTORING FOR NEW INDIA

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The Mentors of Change are leading professionals in the fields of design, innovation, technology, business and entrepreneurship and they volunteer to mentor young minds in India inspired by a deep sense of giving back to the society and serving their nation. They are flagbearers of this wave of change to bring India to the forefront of innovation and technology across the world. To recognize the mentorship and guidance provided by the Mentors of Change, NITI Aayog celebrates their service to the nation through several recognition platforms, all of which are discussed in this section.

## 5.1 Exemplary Mentors of Change

The Exemplary Mentors of Change is an award conferred upon Mentors that have provided exceptional mentoring and benefitted large number of young innovators. These Mentors are an inspiration to the entire mentor community and a source of valuable feedback about various facets of the program for NITI Aayog.



### 5.1.1 Monthly Top Mentors

The Top Mentors for each month are identified based on the mentoring session reports that mentors submit on the Innonet portal. AIM recognises Top MoCs on a monthly basis, and the list is broadcasted on AIM social media channels.



## 5.1.2 Mentor India Round Table

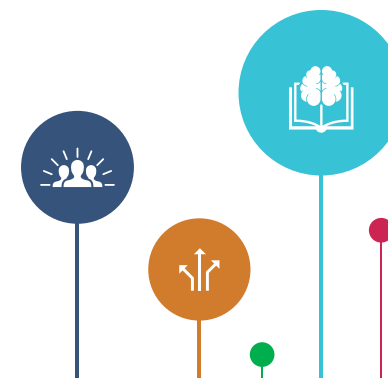
Every six months, NITI Aayog organizes a Mentor India Round Table with CEO, NITI Aayog to honour the work done by Exemplary Mentors of Change for the past six months. The objective of the Round Table is to recognize the efforts of Mentors in building an ecosystem of innovation and entrepreneurship in India and to discuss challenges faced by the Mentors on ground. These events are a source of valuable feedback that is used to further refine the program design and plug the gaps in the program. It is also a platform for NITI Aayog to communicate their vision and action plan for the future of the program.

The last Round Table with Exemplary Mentors of Change was organized on 27th June, 2019 in T-Hub, Hyderabad, where NITI Aayog recognized 42 Mentors of Change for their exceptional mentoring. The Round Table discussion with CEO, NITI Aayog and Mission Director, AIM was concluded with a felicitation ceremony for the Exemplary MoCs. The event was a huge success and the Mentors gave valuable suggestions to address the implementation gaps in the program and bridge communication between ATL and MoC.



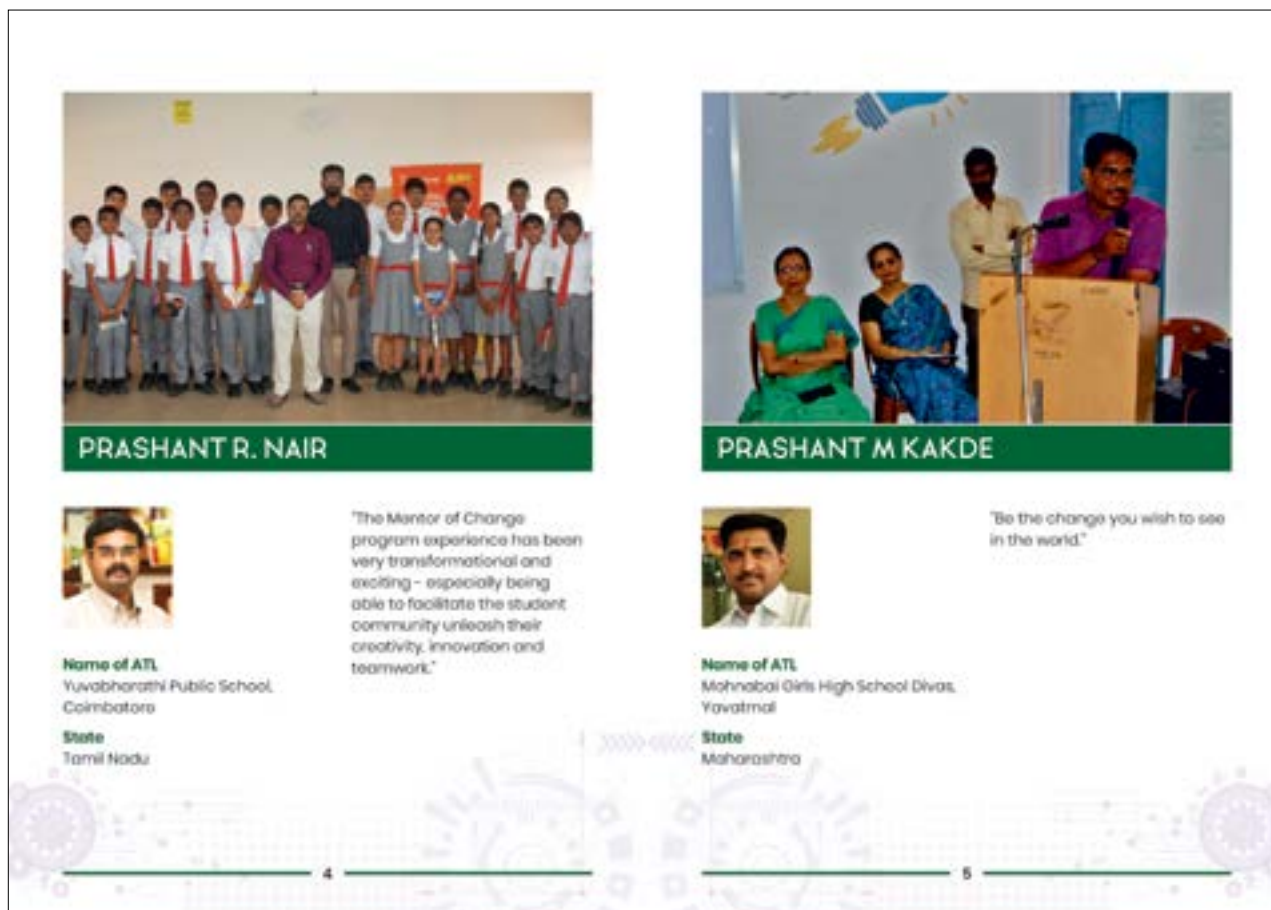
## 5.1.3 Gems of Mentor India

To share and celebrate the exceptional work that the Mentors of Change are constantly doing, and to give them recognition for their efforts a Gems of mentor India is published bi-annually. This book has details of the top performing RMoCs and EMoCs and their mentoring stories. The latest version of this book was released in the Mentor Round Table held in January 31, 2020.



## 5.2 Atal Tinkering Lab Wall of Fame

AIM under NITI Aayog initiated the ATL Wall of Fame, a platform where inspiring innovation stories from the students, teachers and MoCs are shared on a regular basis. These stories are related to events where they have participated or also about their innovation journeys with the ATL.



AIM initiated the ATL Wall of Fame, a platform where inspiring innovation stories from the students, teachers and MoCs are shared on a regular basis.

The ATL Wall of Fame stories can be downloaded here:  
<https://aim.gov.in/wof-2019q3/>





# MENTOR'S FIRSTHAND EXPERIENCE

The youth of India does not lack entrepreneurial zeal, they have an exceedingly unexplored potential for working towards innovation, development and improvement of products, processes and services, with a scalable business model and a high potential of employment generation or wealth creation. In line with this enormous movement is the Atal Innovation Mission (AIM), NITI Aayog that is serving to fuel the drive of innovative start-ups in the country, a drive that hopes to trigger a spurt of young innovators who when graduating from their respective institutions will not waste their time searching for best methods of writing job-search curriculum vitae but will rather be inviting resumes for jobs in their own start-ups. Their hands will be stretched out, but only to give a crisp handshake to a collaborator rather than spreading out asking for the favor of a job.

I love the fact that the students are excited to show the things they make even outside of the school or ATL sessions to their Mentors.

The whole strength of this mission lies in catching them young! HOW? Well, not so difficult. There is already a gigantic populace out there of school-



going children with minds full of creative energy. All we need is to channelize and harness the same as AIM has envisioned. It is programmed to involve volunteers, who as Mentors of Change (MOC), pass on their knowledge, expertise and zeal to young school children through a series of mentoring sessions. Based on their experience and qualification, the MOCs can mentor the mentees with digital literacy, Ideation, Design Thinking, Computational Thinking or Physical Computing and so on.

Class XI students watching an Anil Aggarwal (Founder, Centre for Science and Environment) TED Talk Show on Frugal Innovations in our country

I became a part of the mission as Design Thinking mentor, over a year ago. Since then, barring a few inevitable breaks, I find myself every week surrounded by about 40 bundles of energy who are curious, bubbly, irritated, bored, excited all at the same time! With my weekly visits to the school I am assigned, I have managed to overcome, more or less, the initial resistance, apprehension, smirks and so on of all involved. Now instead of me badgering with messages and phone calls all the time for fixing my visit, the ATL in-charge school teacher also sometimes calls me to inquire about my visit.

After a heart to heart talk with them for a bit, the girls had no inhibitions in writing their innermost concerns and sharing with me.

There was a lot of light, one that radiated from the torch made out of a waste cardboard tube and one that shone from the sparkle in the eyes of the young designers who made it possible.

The students have learnt to present their ideas by talking in front of an audience about their writing, drawing or objects they produce amongst peer groups. It gives me immense satisfaction to witness their creative potential and they go back confident and full of a sense of achievement looking back at their creations. We have sometimes been very liberal in our choices about what we want to do in a particular session, while sometimes we have followed the 'Monthly Theme' given by the AIM's team. Either ways, we have managed to do enough to justify our time together.

**Mentor of Change:** Sheily Srivastava

**School:** GGSSS, New Kondli Delhi

**Exemplary Mentor of Change and Regional Mentor of Change**





## Key attributes of an entrepreneur through Mentor's Eye



## 5.3 Social Media Stories

AIM under NITI Aayog encourages all students, teachers and MoCs to post their innovation stories on social media platforms, which are then shared by AIM. These stories not only help in sharing the contribution of ATL towards changing the innovation mindset of the country, but also serve as incentives for our stakeholders for their commitment towards this national mission.

<https://www.facebook.com/AIMToInnovate/>







#MentoringForNewIndia

