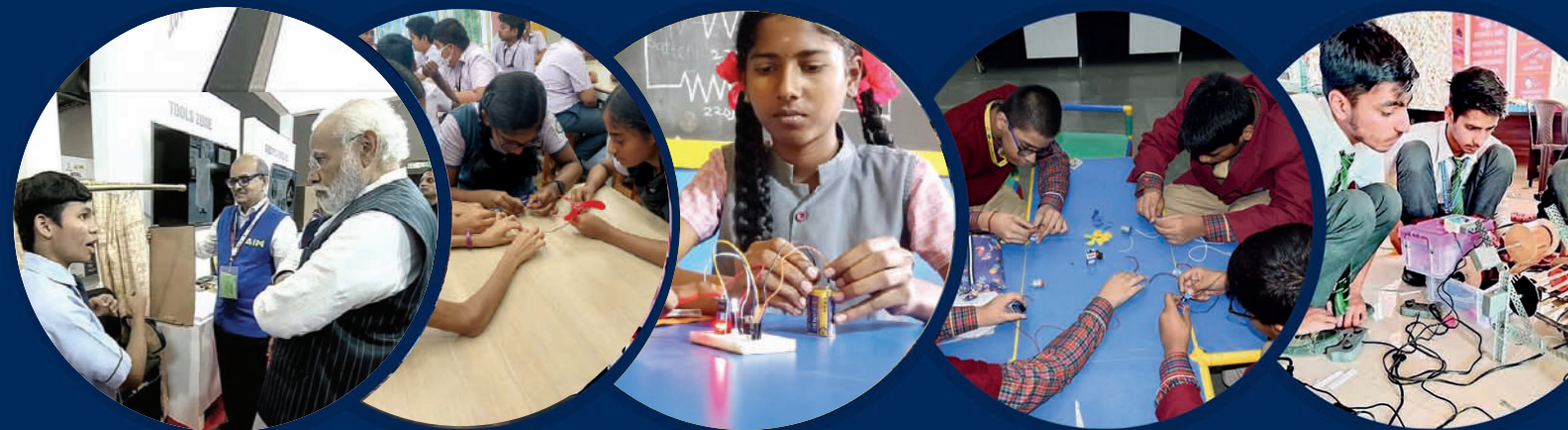


# ATL

# GUIDEBOOK

INTEGRATING INNOVATION IN SCHOOL EDUCATION



2024



“

When I see the young generation busy in innovation with enthusiasm like this, my resolve for 'New India' gets stronger. In the 21<sup>st</sup> century, we will be able to get India the place in the world it deserves.

”

Shri Narendra Modi  
Hon'ble Prime Minister of India



“ I dream of an India that is prosperous, strong and caring. An India that regains a place of honour in the comity of great nations. ”

Late Shri Atal Bihari Vajpayee  
Former Prime Minister of India







Foreword By

**Chintan Vaishnav**

Mission Director,  
Atal Innovation Mission,  
NITI Aayog

Over the past eight years, Atal Innovation Mission (AIM), NITI Aayog has been a driving force in cultivating innovation and entrepreneurship across India. By creating an inclusive ecosystem that integrates efforts from government, academia, industry, and NGOs, AIM has nurtured a collaborative environment for innovation.

The Atal Tinkering Lab (ATL) program, has transformed the educational landscape by shifting students from regurgitative learning to a mindset focused on creativity, problem-solving, and innovation. Through a network of over 10,000 ATLs across 733 districts in India, AIM has provided millions of students with the exposure to 21st-century skills, including AI, Robotics, 3D printing, IoT, and more.

The ATL pedagogy, developed in collaboration with industry and academia, encourages hands-on learning, design thinking, and learning-by-doing. When combined with the traditional curriculum, the approach induces scientific temper, technical skills, and an entrepreneurial mindset from a young age. They build a foundation for the developed India for a better world.

This ATL Guidebook is a comprehensive resource for schools as well as all other stakeholders in the school innovation ecosystem, to understand the vision, design, operations, and impact of the program. It is intended to help scale the paradigm to all schools of India.

I extend my appreciation to the students, educators, mentors, partners and other stakeholders whose support has been crucial to the success of the ATL movement. Their participation is what makes ATLs the largest movement of its kind in the world. I also express my sincere gratitude to all the members of AIM's Mission High-Level Committee (MHLC) under the leadership of the Minister of Education Sh. Dharmendra Pradhan. Equally important has been the guidance of the leadership of NITI Aayog, particularly the Vice Chairperson Sh. Suman Berry, and CEO Sh. B.V.R. Subrahmanyam.

As we look to the future, I am confident that the ATL program will continue to empower young minds shape India's innovation landscape, and contribute to the realization of a 'Viksit Bharat' by 2047.

“ The ignited minds of the youth is the most powerful resource on the Earth.”

Late Dr. A.P.J. Abdul Kalam  
Former President of India





Preface By

**Deepali Upadhyay**

Program Lead,

Atal Innovation Mission,

NITI Aayog

Atal Innovation Mission (AIM), an initiative of the Government of India, aims to promote innovation and entrepreneurship nationwide. Its objectives include developing policies for innovation, facilitating stakeholder collaboration, and providing an overarching framework to strengthen the country's innovation and entrepreneurship ecosystem.

Atal Tinkering Lab (ATL), a flagship initiative of AIM creates a transformative, inclusive, and sustainable innovation ecosystem for students across India. With 10,000 ATLs established in schools nationwide, AIM provides students access to 21st-century tools such as AI, IoT, robotics, and 3D printing, promoting skills like design thinking, problem-solving, and computational thinking. The initiative aims to inspire a culture of innovation, extending its impact beyond the classroom and into the communities. Aligned with the New Education Policy 2020, ATL nurtures problem-solving and entrepreneurship skills, enabling students to address societal challenges with innovative solutions.

The ATL program is rooted in a dynamic and evolving framework, which has been developed over the years through collaboration with stakeholders from academia, industry, central and state government departments, and Atal Tinkering Labs. The framework is based on six foundational pillars- Select Establish Enable Celebrate Evaluate Evolve (SEEC-EE). Select, includes the application and selection process for establishing an Atal Tinkering Lab in any school. Establish, includes the compliance, SoPs, guidelines and orientation for the initial set up of the lab. Enable, the methodologies for creating a vibrant community with capacity building initiatives, engaging students and teachers with competitions and events, communication and outreach initiatives. Celebrate, initiatives to recognize ATL schools, students, teachers, mentors. Evaluate, focused on monitoring and evaluation methodologies for ATLs to enhance their performance. Evolve, addresses policy experiments, curriculum integration, new tinkering templates and career pathways for continuous improvement and evolution of the ATL program. This comprehensive approach ensures that the program remains adaptable, ensuring

continued growth and relevance in an ever-changing educational landscape.

This Guidebook presents a framework for scalable and sustainable growth of the Atal Tinkering Lab initiative. By collaboration between public and private sectors and strengthening center-state cooperation, it seeks to provide a strategic pathway for expanding the program's reach. The Guidebook is designed to engage a diverse audience, including school management, ATL in-charges, student innovators, mentors, corporate entities, and central and state government authorities, each contributing uniquely to realizing the initiative's vision and maximizing its impact.

We have followed a deeply participative approach in preparing the ATL Guidebook. It captures observations, insights, experiences and case studies from some of the finest Atal Tinkering Labs across India. Constant feedback has been captured from multiple

stakeholders to improvise the overall experience of tinkering and innovation for schools and mentors, and some of the key learnings are being shared in this book.

I take this opportunity to thank NITI Aayog Vice-Chairperson Mr. Suman Berry, CEO Mr B.V.R. Subrahmanyam and AIM Mission Director Dr. Chintan Vaishnav, for their spirited leadership and continuous support towards making ATL a national movement across India.

My sincere gratitude to the Ministry of Education, Department of School Education and Literacy, Central Board of Secondary Education (CBSE), National Council of Educational Research and Training (NCERT) and All India Council for Technical Education (AICTE) for continuously guiding and supporting AIM in every step of our journey. I also extend my gratitude to the Government e Marketplace (GeM), National Informatics Centre (NIC), MyGov, Ministry of Agriculture, Department of Science & Technology (DST), Office of the Principal Scientific Adviser, Ministry of Skill Development and Entrepreneurship (MSDE), Ministry of Electronics and Information Technology (MEITY), Ministry of Tribal Affairs, Department for Promotion of Industry and Internal Trade (DPIIT),



The Office of the Controller General of Patents, Designs and Trade Marks (CGPDTM), Startup India, Cell for IPR Promotion & Management (CIPAM), Council of Scientific & Industrial Research (CSIR), and Indian Space Research Organisation (ISRO) for their support to the ATL initiative.

ATL is a nationwide program, and would require both center and state to work together to make it a huge success at the grassroots. I would like to mention the efforts of the State Governments for their pro-active participation in the ATL program implementation in their respective states.

I extend my heartfelt gratitude to the entire ATL community, principals, teachers, student innovators, mentors, parents and all stakeholders whose dedication has been instrumental in the success of this movement.

My special acknowledgement for the co-operation and support received from all our Partners including- Intel, IBM, DELL, Dassault Systems, CGI, IndusInd Bank, Bayer, Capgemini, AWS, Meta, Embassy of Sweden, UNICEF YuWaah, ISB-DLABS, MakerGhat, Learning Links Foundation, Vigyan Ashram ENpower and Network Capital for their contribution and commitment towards building a vibrant community of tinkering and innovation in India. I thank the AIM incubation centers and community innovation centers who supported the ATL Student Innovator Program.

I want to appreciate the efforts of the ATL Team, Sh. Prateek Deshmukh, Sh. Shubham Gupta, Sh. Suman Pandit and Ms. Ridhi Jain for providing invaluable support to me during the framing and scribing of this book. I would also like to thank my colleagues at AIM, Sh. Pramit Dash, Sh. Rohit Gupta, Sh. Himanshu Joshi, Sh. Ashwin Wasnik, Ms. Sumaiya Yousuf, Sh. Suhail Shiekh, Sh. Ashish Pandey, Ms. Vitasta Tiwari and Ms. Garima Ujjainia for their support in enabling the innovation ecosystem for ATL community.

Looking ahead, I am confident the ATL program will achieve new milestones, empowering young minds to drive India's progress. Together, let us nurture curiosity, innovation, and entrepreneurship, as we work toward a Viksit Bharat by 2047.

Happy Tinkering!



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## 1. Genesis of Atal Tinkering Labs

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. Strong linkages are being created between academia, government, and industry, to create an enabling environment, 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. This book recounts the story of the first of its kind and largest ever government led initiative in the history of India.

### 1.1. NITI Aayog

The National Institution for Transforming India, also called 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 programmes for the Government of India, NITI Aayog also provides relevant technical advice to the Centre and States.

NITI Aayog is developing itself as a state-of-the-art resource centre with the necessary knowledge and skills that will enable it to act with speed, promote research and innovation, provide strategic policy vision for the government, and deal with contingent issues. It is supported by an attached office, Development Monitoring and Evaluation Organisation (DMEO), a flagship initiative, Atal Innovation Mission (AIM) and an autonomous body, National Institute of Labour Economics Research and Development (NILERD).

### Composition of NITI Aayog

A high-level team comprising 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

The 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 country.

AIM's objective is to develop new programmes and policies for fostering innovation in different sectors of the economy, provide platforms and collaboration opportunities for different stakeholders, and create an umbrella structure to oversee the innovation & entrepreneurship ecosystem of the country.

Through the Atal Tinkering Labs (ATL), AIM is fostering the spirit of creativity and innovation in young minds, wherein students get an opportunity to experience 21st century skills such as design mindset, computational thinking, adaptive learning, physical computing etc. The aim is to stimulate a problem-solving innovative mindset within the children of the ATL and nearby communities.

To further nurture these school students, the Mentor of Change (MoC) program was launched by AIM, wherein skilled professionals provide pro-bono mentoring to young ATL innovators, with a strong sentiment towards nation building.

Atal Incubation Centres (AICs) are business incubators established by AIM at universities, institutions and corporates to foster world-class innovation and support dynamic entrepreneurs. These AICs enable startups by providing technical facilities, resource-based support, mentorship, funding support, partnerships and networking, co-working spaces and lab facilities among others.

Atal Community Innovation Centres (ACICs) through PPP driven model are encouraging the spirit of innovation with a focus on underserved/unserved regions of the country, such as rural, tribal, aspirational districts, hilly and/or coastal areas which at present lack a vibrant startup and innovation ecosystem.

The Atal New India Challenges (ANIC) aims to seek, select, support and nurture technology-based innovations that solve sectoral challenges of national importance and societal relevance. ANIC solicits innovations in the prototype stage and supports the selected start-ups throughout the commercialization stage over the course of 12 – 18 months.

### 1.3. Atal Tinkering Labs

ATL is the flagship initiative of AIM, NITI Aayog, NITI Aayog, Government of India, to nurture an innovative mindset among high school students across India.

ATL is a state-of-the-art space established in a school with a goal to foster curiosity and innovation in young minds, between grade 6th to 12th through 21st century tools and technologies such as Internet of Things, 3D printing, rapid prototyping tools, robotics, miniaturized electronics, do-it-yourself kits and many more.

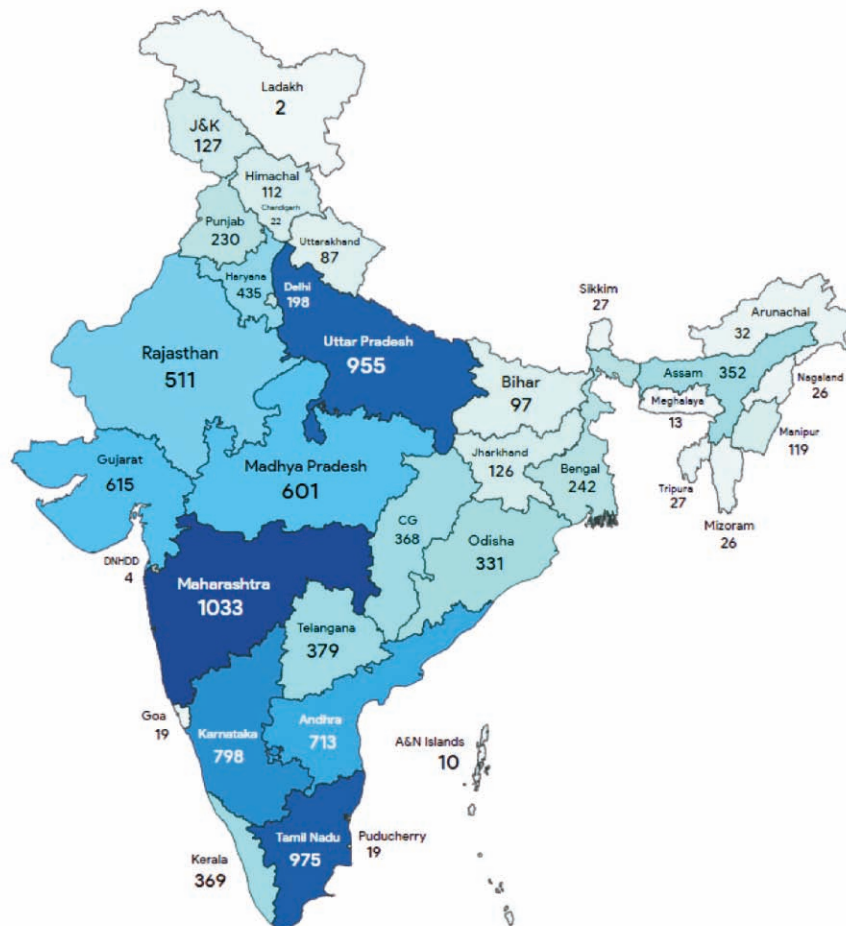
To foster inventiveness among students, ATL can conduct different activities ranging from regional and national level competitions, exhibitions, workshops on problem solving, designing and fabrication of products, lecture series etc. at periodic intervals. ATL is also providing other sections of the community including parents, mentors and other individuals interested in innovation an opportunity to give life to their ideas.



### 1.3.1. ATL Objectives

1. To create workspaces where young minds can learn innovation skills, sculpt ideas through hands-on activities, work and learn in a flexible environment.
2. To empower our youth with the 21 century skills of creativity, innovation, critical thinking, design thinking, social and cross-cultural collaboration, ethical leadership and so on.
3. To help build innovative solutions for India’s unique problems and thereby support India’s efforts to grow as a knowledge economy.

Under the ATL scheme, grant-in-aid of up to Rs. 20,00,000/- (Rupees Twenty Lakhs Only) is provided to schools selected for setting up the ATL, with Rs.10 lakh for capital expense and remaining Rs.10 lakh for operational and maintenance expenses over a period of five years.



Map of ATLs across India



Till date, AIM has established 10,000 Atal Tinkering Labs in schools across the country, covering more than 90% of all the districts and 102 Aspirational Districts of India. The effort has been to build an inclusive model for innovation by providing an equal opportunity to all regions and to all children, irrespective of the rural-urban gap and government-private gap. 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 students learn, think, ideate and innovate.



### **1.3.2. Significance of ATL for India**

Innovation will play a vital role in the goal of Viksit Bharat (Developed India) by 2047 and our young innovators will be the driving force behind future discoveries and innovations. Teaching innovation and entrepreneurship to school students can not only enhance motivation among students resulting in deep learning, but also lead to economic impacts, as has been seen in several studies.



Keeping in mind the demands of the growing economy and global growth in innovation development, the ATL initiative, is tapping on the intrinsic imaginative and problem-solving knack of children and equipping them with the required skills of the future. ATL is aligned with the vision of the New Education Policy 2020, emphasizing innovation, problem-solving, and entrepreneurship among school children.

### 1.3.3. Trends in ATLS



#### Tinker Champs

Reverse mentoring and peer mentoring



#### Code for Challenge

Young Indian teams representing and winning global awards



#### Touch free Hand Sanitizer

Students being awarded patents



#### Community Day

Self sustaining regional level tinkering ecosystems solving community problems



#### Tinkerpreneur

Students creating their online digital ventures



#### Assistive Tech Demo Day

Student teams pitching their innovations to funders



#### College Scholarship for ATL students

Universities recognizing importance of innovation



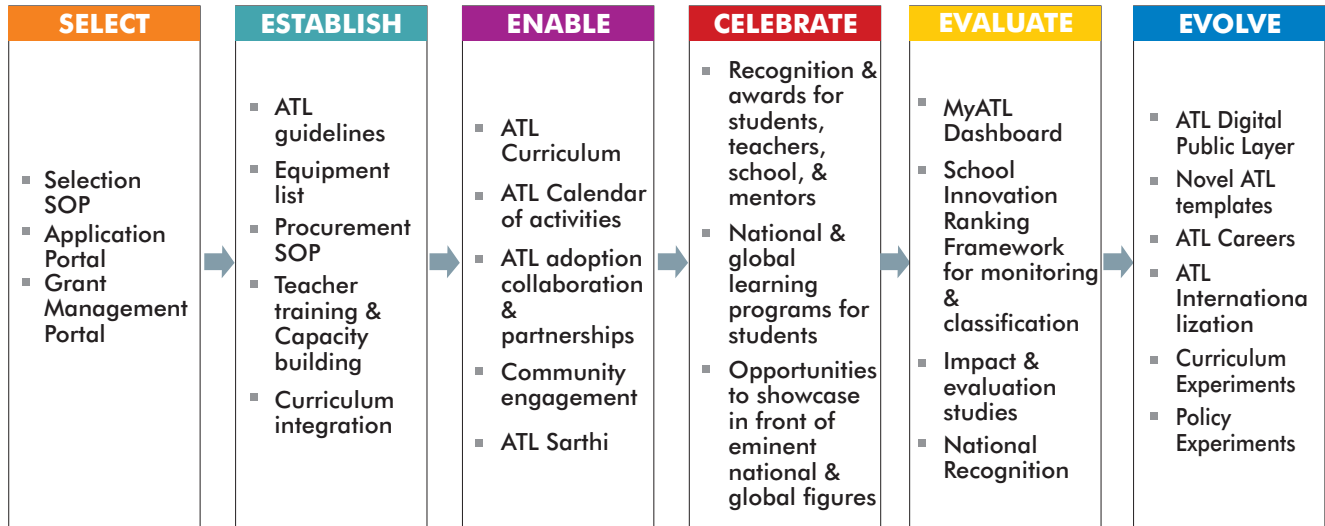






## 2. ATL Program Design & Framework

To achieve the objectives of the ATL program, a robust framework has been developed covering six major pillars. Over the past 6 years, there have been consistent efforts to build and strengthen each of these pillars with processes, technologies, initiatives, and partnerships. The ATL program design systematically helps the school to nurture the innovation mindedness amongst the young innovators.



The present Atal Tinkering Lab program framework comprises the following pillars:

- Select** – The Select phase involves a structured and transparent process to identify schools eligible to establish ATL. Schools express their interest by submitting applications on online Application Portal. The applications undergo a thorough screening process followed by documentary and financial compliance. This phase ensures that selected schools have the potential to utilize the ATL facilities effectively and reach underserved regions, aligning with AIM’s mission of democratizing tinkering and innovation.
- Establish** – The Establish phase focuses on operationalizing ATLs in selected schools. This begins with procurement of specified ATL equipment and setting up the lab. Identification of right human resources for managing the lab, constituting the ATL Advisory Committee and setting up processes for ongoing inventory management and operations of the lab is also done in this phase. Additionally, AIM organizes orientation and capacity-building workshops for ATL teachers, equipping them with skills in STEM education and hands-on learning. This phase ensures schools are adequately prepared to run ATLs as hubs of creativity and innovation.
- Enable** – The Enable phase ensures the effective functioning and growth of ATLs by providing structured guidance, resources, and support systems. AIM conducts the Unbox Tinkering teacher training program, equipping educators with the skills needed to effectively run ATL activities and incorporate STEM-based methodologies into classrooms. The ATL curriculum and learning modules are continuously updated to integrate tinkering with academic subjects, fostering creativity, problem-solving, and critical thinking. The annual ATL calendar outlines a schedule of activities, workshops, and competitions to keep students and teachers actively engaged. Community engagement is a key focus, with ATLs encouraged to host events, workshops, and exhibitions that involve community students, parents, and local stakeholders. AIM’s ATL Sarthi initiative strengthens the local ATL ecosystem by introducing a cluster-based approach, grouping ATLs in proximity for co-learning and resource sharing. These clusters facilitate mentorship, training, and localized support through Cluster Guidance Committees, comprising ATL in-charges, mentors, and state representatives. Collaboration with ministries and state governments ensures policy alignment, administrative backing, and program scalability. This multi-layered support system ensures that ATLs are sustainable, impactful, and aligned with the broader objectives of innovation and education.

- **Celebrate** – The Celebrate phase recognizes and celebrates outstanding contributions from students, teachers, schools, and mentors. AIM organizes events and platforms to showcase success stories, innovative projects, and impactful outcomes from ATLs. Recognition at local, national, and international levels motivates stakeholders and inspires others to actively participate in the program.
- **Evaluate** – The Evaluate phase incorporates structured tools and methodologies to assess the progress and impact of ATLs. The MyATL Dashboard is a digital platform that enables schools to log activities, track student engagement, and submit reports on events and innovations. Further, the School Innovation Ranking – a framework to categorize ATLs into five outcome bands based on two critical pillars: Performance and Enablement (PE) – serves as a self-assessment tool for schools to identify strengths and address gaps effectively in their ATL. To understand the broader impact of ATLs, AIM conducts third-party assessment studies. These studies evaluate the influence of ATLs on student skill development, innovation outputs, and community engagement. Insights from these evaluations guide policy enhancements and support the scaling of successful practices. Together, these tools ensure that ATLs not only meet compliance standards but also drive meaningful educational and societal outcomes.
- **Evolve** – The Evolve phase focuses on adapting and enhancing the ATL framework to keep pace with technological advancements, changing educational demands, and the evolving innovation ecosystem. AIM envisions the creation of a Digital Public Layer for ATLs to foster digital communities, provide access to resources, monitor performance, and strengthen the ecosystem. Key initiatives include curriculum integration experiments with innovative teaching methods, integrating emerging technologies, and collaborating with educators to create a curriculum that not only meets academic standards but also fosters a spirit of curiosity and innovation amongst the students. Additionally, development of new tinkering templates to meet the unique needs of various regions and communities, ensuring inclusivity and equity in innovation opportunities nationwide.

The next chapters will explain each pillar in-depth and provide step by step guidance through the selection process, establishment, enablement and successful maintenance of an ATL as to reap the opportunities and rewards that come by for consistent innovative students, teachers and mentors.





## **Chapter - 3**

# **Selection of Atal Tinkering Lab**



### 3. Selection of Atal Tinkering Lab

This chapter explains the first phase of the ATL framework – Selection. It will guide the reader through the entire application and selection process for an ATL and the documentary compliance required by ATLs once they are selected.

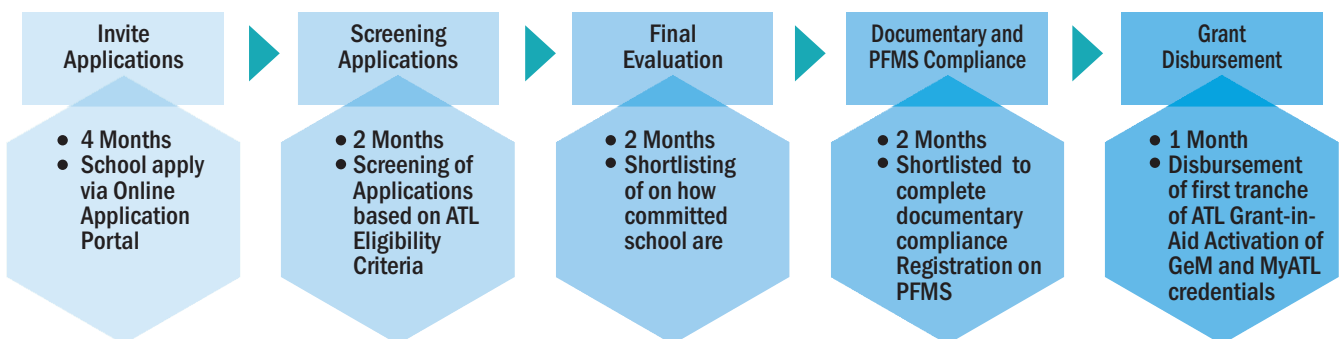
#### 3.1. Selection criteria for ATLs

Schools in India (having at least Grade/Class VI to X) recognized by Ministry of Education (MoE) and managed by State/Union Territory/Central Government, Local body (Municipality/Nagar Nigam), Private Trusts/Society or Tribal/Social welfare Department can apply for Grant-in-Aid for establishment of Atal Tinkering Lab.

The detailed eligibility criteria are given below in the table :-

Criteria	Parameters
<b>Infrastructure</b>	<ul style="list-style-type: none"> <li>All weather area (1,500 sq. ft.) in regular/plain areas</li> <li>All weather area (1,000 sq. ft.) in Hilly/Himalayan and Island states/UTs</li> <li>Computer Lab with internet facility</li> <li>Steady electricity connection</li> <li>Science Lab (Physics, Chemistry, Biology)</li> <li>Library and Playground</li> </ul>
<b>Faculty</b>	<ul style="list-style-type: none"> <li>Dedicated &amp; qualified staff: Mathematics, Sciences and Computer teachers</li> </ul>
<b>Reach</b>	<ul style="list-style-type: none"> <li>Enrolment – Min. 400 students in Class/Grade VI – X</li> <li>Enrolment – Min. 250 students in Class/Grade VI – X in hilly states</li> <li>Regular attendance of 75% &amp; above of the staff &amp; enrolled students over the past 3 years</li> </ul>

A five-stage selection process is followed as described below:



**Stage 1: Inviting applications via online application portal:** Schools are invited to submit online applications for ATL. The ATL online application portal is a seamless platform developed for schools to submit their ATL applications.

**Stage 2: Screening of applications:** Received applications would be processed based on eligibility criteria as detailed above.

**Stage 3: Final evaluation:** Assessment is made based on how committed the school is to utilize the ATL as a platform to transform their school into a local innovation hub.

After the final evaluation, the shortlisted schools are announced in the form of a list on AIM website. The number of shortlisted ATLs announced at any point of time is based on budgetary allowance and approval of competent authority.

**Stage 4: Documentary Compliance:** To receive the grant-in-aid, the shortlisted schools are required to upload relevant documents on the online document submission portal for document verification. The documents include a declaration form by the school Principal on the school letter head, Memorandum of Agreement (MoA), bond, which is applicable for non-governmental schools only, bank passbook detail and the ATL lab layout.

As part of the Public Financial Management System (PFMS) compliance, schools are required to register their institution on the PFMS portal and open a new bank account as per AIM Guidelines. The PFMS is a government-initiated finance management and decision support system, that helps to track and monitor fund disbursement and utilization for government schemes.

**Stage 5: Grant Disbursement to the Selected Schools:** Upon successful completion of the above steps, the Tranche 1 of ATL Grant-in-Aid will be sanctioned and transferred to the ATL bank account of the school.

Simultaneously, the activation process for Government e-Marketplace (GeM) and MyATL Dashboard credentials for the school will be initiated by AIM.



Detailed Application guidelines of ATLs can be accessed from here:

[https://aim.gov.in/pdf/ATL-Application\\_Guidelines-2018.pdf](https://aim.gov.in/pdf/ATL-Application_Guidelines-2018.pdf)



### 3.2. Compliance Process of ATLS

Compliance refers to the adherence of AIM, NITI Aayog’s requirements in terms of proper documentation, such that grant-in-aid can be released to the ATL School.

Grant-in-aid of Rs. 20 lakhs is sanctioned for each of the selected schools for establishing Atal Tinkering Labs, which includes Rs. 10 lakhs as one time establishment cost and the remaining Rs. 10 lakhs towards Operational and Maintenance (O&M) expenses over a period of five years. The Tranche-wise distribution of the ATL Grant-in-Aid is summarized in the following table:-

Tranche	Amount	Purpose
1	Rs. 10,00,000 /-	One-time establishment cost for ATL equipment
	Rs. 2,00,000 /-	Operations and Maintenance expenses (for first year)
2	Rs. 4,00,000 /-	Operations and Maintenance expenses for second and third year of ATL operations (after completion of 12 months of operations)
3	Rs. 4,00,000 /-	Operations and Maintenance expenses for fourth and fifth year of ATL operations (after completion of 24 months from Tranche 2 disbursement)

Selected schools must understand compliance requirements on the basis of two different stages of ATL program - Compliance before release of Tranche 1 (as already detailed as part of the Selection process) and Post-Establishment Compliance.

#### 3.2.1. Fund Utilization Guidelines:

Schools must utilize the Grant-in-Aid for the specified purposes as mentioned in AIM Fund Utilization Guidelines. The link is available here



Tranche Utilization guidelines:  
<https://aim.gov.in/pdf/ATL-Tranche-Restructuring-Order-and-Guidelines-260822.pdf>

#### 3.2.2. Utilization Certificate:

Schools must submit Utilization Certificate (UC) in General Financial Rules-12A (GFR-12A) format at the end of every financial year. AIM has developed user manuals and tutorial videos available on AIM YouTube Channel for schools to refer for filling UC.



UC User Manual:  
[https://aim.gov.in/pdf/ATL\\_UC\\_User\\_Manual\\_08042022.pdf](https://aim.gov.in/pdf/ATL_UC_User_Manual_08042022.pdf)



Link to UC tutorial (English) -  
<https://www.youtube.com/watch?v=UUNBnK7xtlc&t=4s>



Link to UC tutorial (Hindi)  
<https://www.youtube.com/watch?v=8woQZ5A7T6c&t=6s>

### **3.2.3. Subsequent Tranche Guidelines:**

The release of subsequent tranche shall be a function of the performance of an ATL, the utilization of the previous grant and the submission of details required on MyATL Dashboard.

As part of documentary compliance, schools must upload Utilization Certificate, Audited Statement of Account, Bank Statement/Passbook, Interest remittance acknowledgement and Tax Declaration on AIM Subsequent Tranche Portal.

AIM has formulated the detailed guidelines for subsequent tranche, available on AIM website



Subsequent Tranche Guidelines  
[https://aim.gov.in/pdf/Revised%20Subsequent%20Tranche%20Guidelines\\_Finance.pdf](https://aim.gov.in/pdf/Revised%20Subsequent%20Tranche%20Guidelines_Finance.pdf)



ATL Compliance Portals  
<https://aim.gov.in/atl-compliance-portals.php>





## 4. Establishment of Atal Tinkering Labs

This chapter details out the next phase of the ATL framework – Establish. It will elucidate the entire process of establishment of ATL including procurement of equipment, setting up the lab as well as initial orientation of the ATL.

Once the school has received their ATL Grant-in-Aid, they must create an advisory board, set up the ATL space, procure the ATL equipment through GeM, identify the right human resources and train them. These elements shall be crucial towards ensuring that the facility is able to meet its expected outcomes. Schools must operationalize the ATL within 3 months after receiving the ATL Grant-in-Aid.

### 4.1. Designing the ATL Space

The ATL shall be set up in a 1000 to 1500 sq. ft. area, depending upon the regional location, as per the ATL application guideline. The ATL space should be one single room with maximum open space, such that one section can be designated for lecturing and mentoring, while another section can 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 in proximity to the main building of the school. The lab must be arranged so that there is enough space for the movement of students. All relevant guideline documents, manuals and learning content must be placed at a designated place in the tinkering lab.

Since the ATL is an open experimentation and innovation bed, it is extremely essential to follow the proper design and layout guidelines.



Layout Guidelines

[http://aim.gov.in/pdf/ATL\\_Design\\_and\\_Layout\\_Guideline.pdf](http://aim.gov.in/pdf/ATL_Design_and_Layout_Guideline.pdf)

Additionally, safety is of utmost importance for both students and teachers. Important safety guidelines and etiquettes are accessible here:



ATL Safety Guidelines

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

A vibrant branding scheme conducive to innovation should be followed, for consistency and uniformity in labs, while also maintaining the unique look and feel of each lab. The branding guidelines created by AIM are categorized into three broad categories -



ATL Branding Pack  
[https://aim.gov.in/pdf/Print\\_Media.zip](https://aim.gov.in/pdf/Print_Media.zip)



ATL Design and Layout branding guidelines  
[http://aim.gov.in/pdf/ATL\\_Design\\_and\\_Layout\\_Branding.pdf](http://aim.gov.in/pdf/ATL_Design_and_Layout_Branding.pdf)



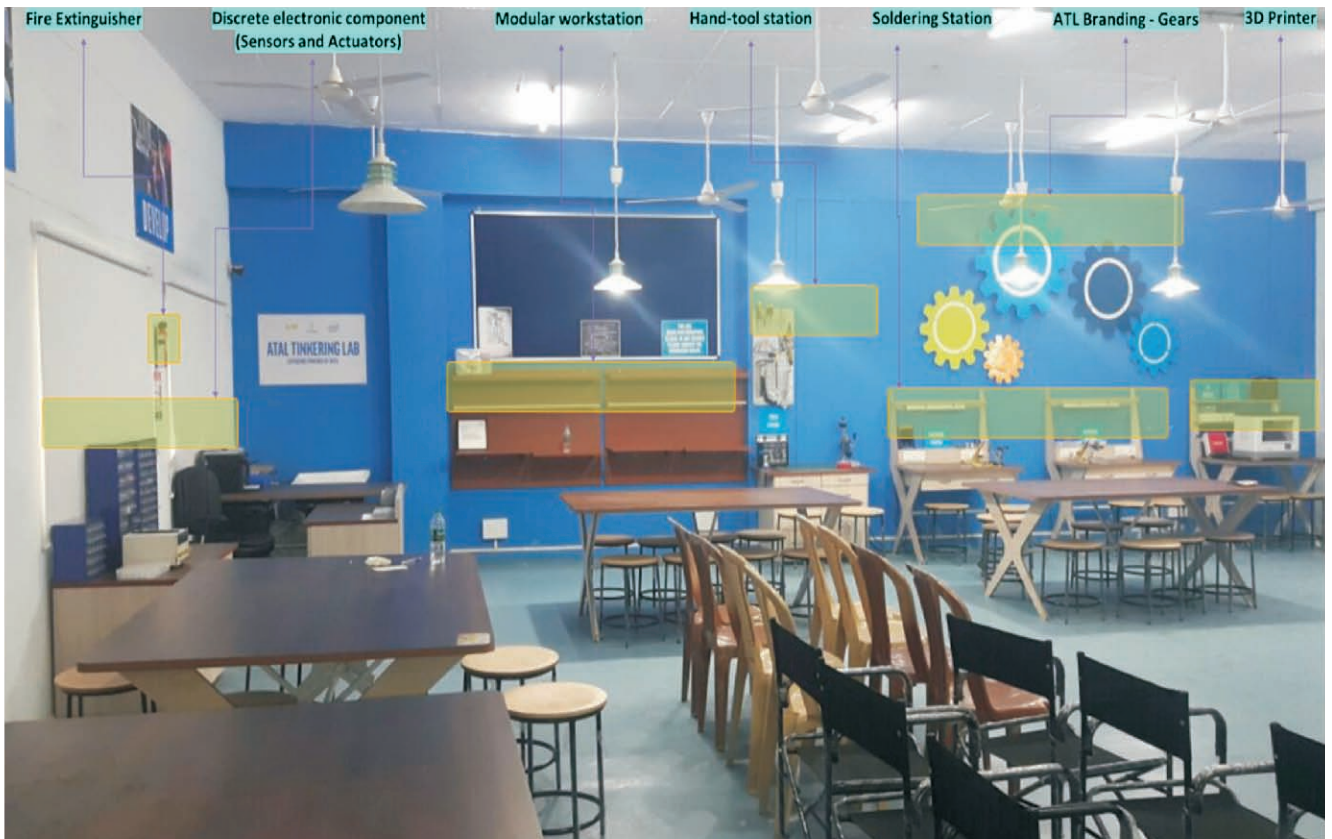
AIM branding guidelines  
[http://aim.gov.in/pdf/Guideline\\_for\\_using\\_AIM\\_Logo.pdf](http://aim.gov.in/pdf/Guideline_for_using_AIM_Logo.pdf)



A video for a model ATL Lab Design and Layout can be viewed here  
<https://www.youtube.com/watch?v=TYKCIPFxGzl&t>



Some pictures of standard ATL layout are shown below:





## 4.2. Identifying the Right Human Resource

While working in the ATL, students get an opportunity to transform their ideas into workable prototypes/models. However, to achieve the desired results, nominating/selecting teachers with the right knowledge, skills and experience to take the role of an ATL In-charge becomes crucial. The ATL In-charge is instrumental towards ensuring the innovation productivity of the ATL and must be selected carefully.



The potential qualifications for an ATL In-charge  
[http://aim.gov.in/pdf/Potential\\_Qualifications\\_for\\_ATL\\_Incharge.pdf](http://aim.gov.in/pdf/Potential_Qualifications_for_ATL_Incharge.pdf)

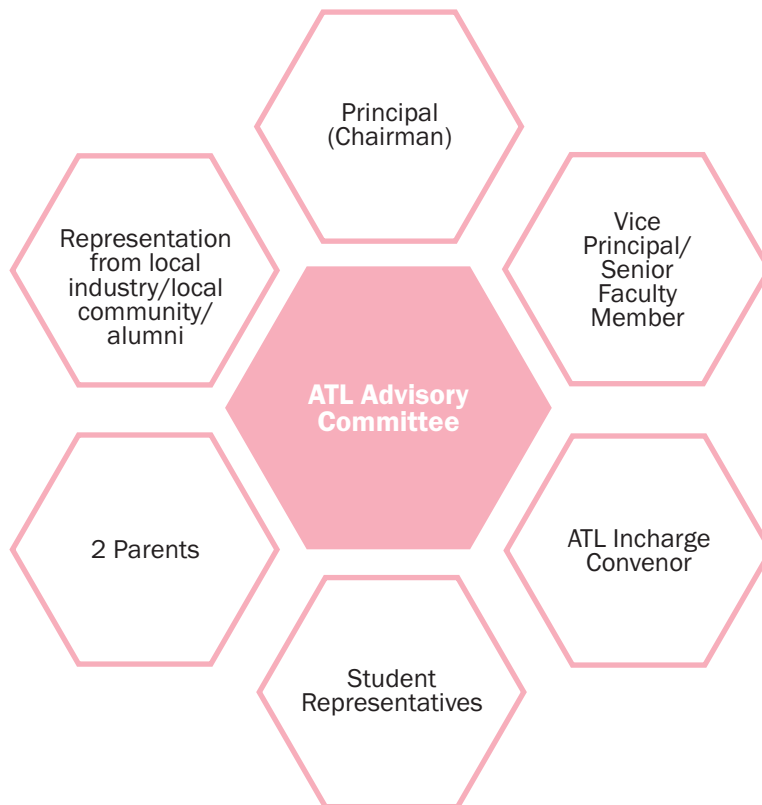
The ATL In-charge should be able to nurture the ATL innovation ecosystem to facilitate generation of ideas and keep students motivated towards tinkering. It is the responsibility of the ATL In-charge to set up the ATL, with support from the school management. The ATL In-charge, should organize campaigns in schools to spread awareness and get larger number of students to join the ATL. He/she should motivate students to solve local community problems in the ATL. He/she should identify and develop partnerships with relevant stakeholders – mentors and industry experts. He/she should document all activities and prepare reports.



Do's and Don'ts of ATL In-charge  
[http://aim.gov.in/pdf/Dos\\_and\\_Donts\\_for\\_ATL\\_incharges.pdf](http://aim.gov.in/pdf/Dos_and_Donts_for_ATL_incharges.pdf)

### 4.3. Establishing ATL Advisory Board

Each ATL must have an advisory body that will monitor the functioning of the ATL as per ATL guidelines. The school can constitute a single body/ committee which will help in managing the ATL and be responsible for sharing the requested reports/ information with AIM.



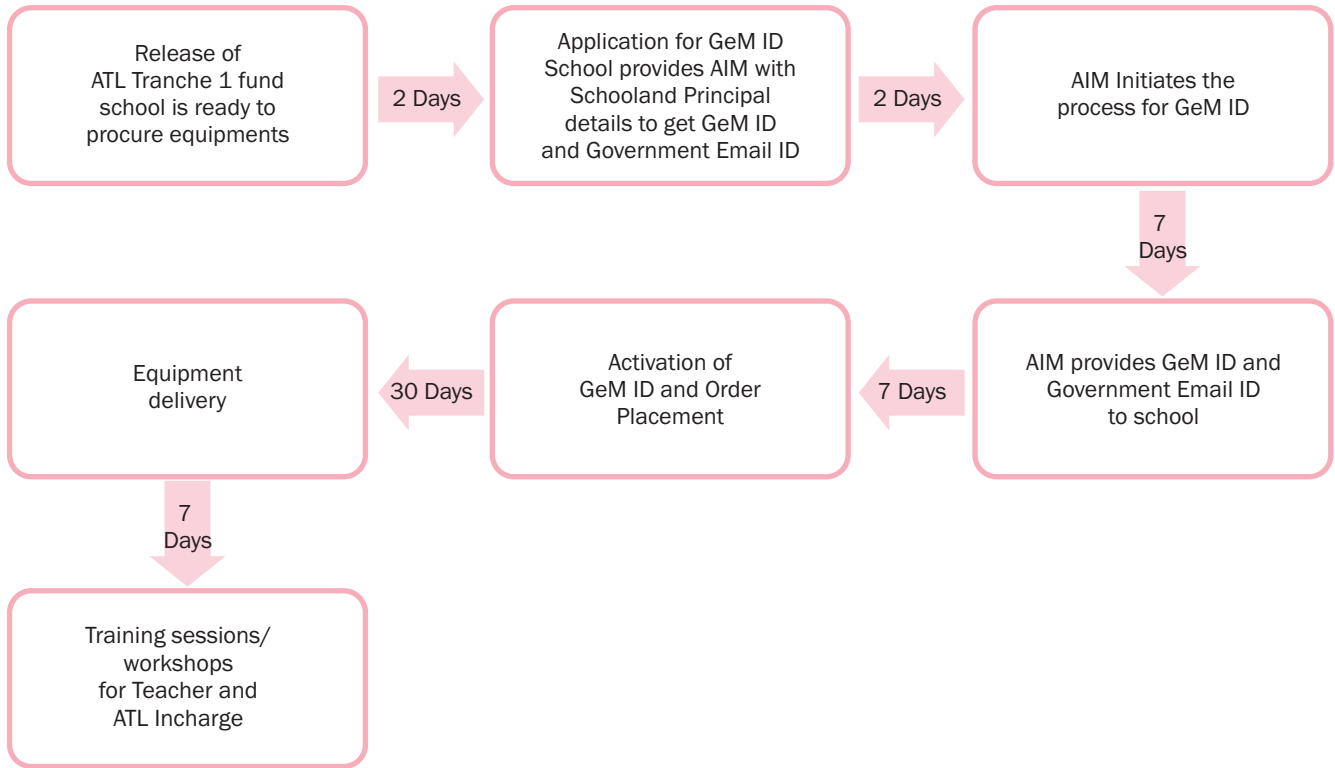
### 4.4. Procurement of ATL Equipment

AIM has mandated the procurement of the ATL equipment through the Government e-Marketplace (GeM) portal, a digital platform that makes the public procurement process more efficient, transparent, and inclusive.

Some of the Broad highlights of ATL procurement guidelines are:

- Schools must set up the ATL within 3 months of receiving the first tranche.
- AIM has created the list of equipment required for the ATL. Schools must purchase all equipment listed in the ATL Equipment list available on AIM Website.
- The vendor's equipment package must include training to Principal, ATL In-charge and other faculty staff about the equipment and their usage.
- The vendors should provide 2 years of comprehensive warranty and 3 years comprehensive AMC at no additional charge (including for 3D printers).

The process for procurement through GeM portal is given below –



Schools can refer to detailed Equipment List, Procurement Guidelines and GeM guidelines at <https://aim.gov.in/atl-guidelines-and-information.php>

## 4.5. Initial Orientation Workshop

The Initial Orientation Workshop introduces ATL In-charges to the core elements of ATL management. It covers operational guidelines, best practices, and key resources, preparing educators to set up and maintain an engaging lab environment where students can experiment and innovate.

Key Training Components

1. **ATL Program Introduction:** Overview of ATL's mission, goals, and the teacher's role in nurturing creativity and problem-solving skills.
2. **Grant-in-Aid and Fund Utilisation:** Guidelines on managing funds effectively to acquire lab equipment and operate the lab.
3. **ATL Dashboard:** Training on using the Dashboard for reporting, monitoring, and accessing resources.
4. **Government E-Marketplace (GeM):** Instructions for procuring lab equipment in compliance with government standards.
5. **Tinkering Curriculum and Learning Resources:** Introduction to the ATL Tinkering Curriculum, Learning Modules on AIM website and how to implement them
6. **Design Thinking:** Teaching educators to guide students in using Design Thinking to develop creative solutions
7. **Events and Competitions:** Information on ATL calendar- key ATL events like the School Innovation Marathon, Tinkerpreneur, and Space Challenge.
8. **Certified ATL Teacher Training Course:** To be completed by all ATL Teachers after the initial orientation to gain a deeper understanding of ATLS.

## 4.6. Managing an ATL

Proper administration and management of the ATL is necessary to ensure its smooth functioning. AIM has established guidelines for inventory and information management, which are further detailed below.

### 4.6.1. Inventory Management

A significant component that ensures seamless operation of ATL is keeping a tab on items such as tools and materials, content, furniture and so on. The ATL In-charge, responsible for general inventory and security of equipment/ consumables, is also entrusted with the task of supervising students to ensure careful handling of equipment. The following activities are proposed to ensure a systematic inventory management of the ATL:

- a. **Maintaining an inventory document** – A list of all equipment in the lab on paper and in online mode is to be maintained.
- b. **Maintaining records of all supplies and consumption of equipment**– Detailed records of all consumed materials, supplies and obsolete stock is to be maintained and duly countersigned by the Principal/ Vice-Principal, along with the ATL In-charge. Dedicated forms/ templates for safety, replenishment, and excess outdated stock shall also be maintained.
- c. **Determining frequency of ordering stocks**– It is recommended to set a minimum stock level, so that supplies are ordered for, well in advance.
- d. **Procurement formalities**– The ATL In-charge must initiate the procurement process and submit approval request to ATL Advisory Board, before the complete depletion of stock.
- e. **Maintaining a record of bills/ expenses**– ATL budget should be maintained considering both fixed and variable expenses, with complete record of bills to facilitate the compliance requirements and ATL audit, as and when conducted.

- f. Maintaining the safety and security of the lab**– Safety and security while working in the ATL is extremely important, and the school management must implement all relevant guidelines to ensure safe working conditions.

### 4.6.2. Information Management

All activities in the lab need to be properly recorded, documented and relevant information must be shared with relevant stakeholders to ensure success of the initiative.

a. Information sharing with internal purposes/audience

ATL internal audience comprises of students, parents, teachers, board of trustees and school management. It is vital to keep them apprised of all necessary information, since they may be holding decision making positions and capable of providing required support for smooth operation of the labs.

b. Information sharing with external purposes/audience

The ATL external audience are AIM team, ATL Advisory Board, community schools making use of the ATL facilities, other ATL schools, and potential partners/ stakeholders and so on. Information ought to be disseminated to these audiences for their support, as and when required.

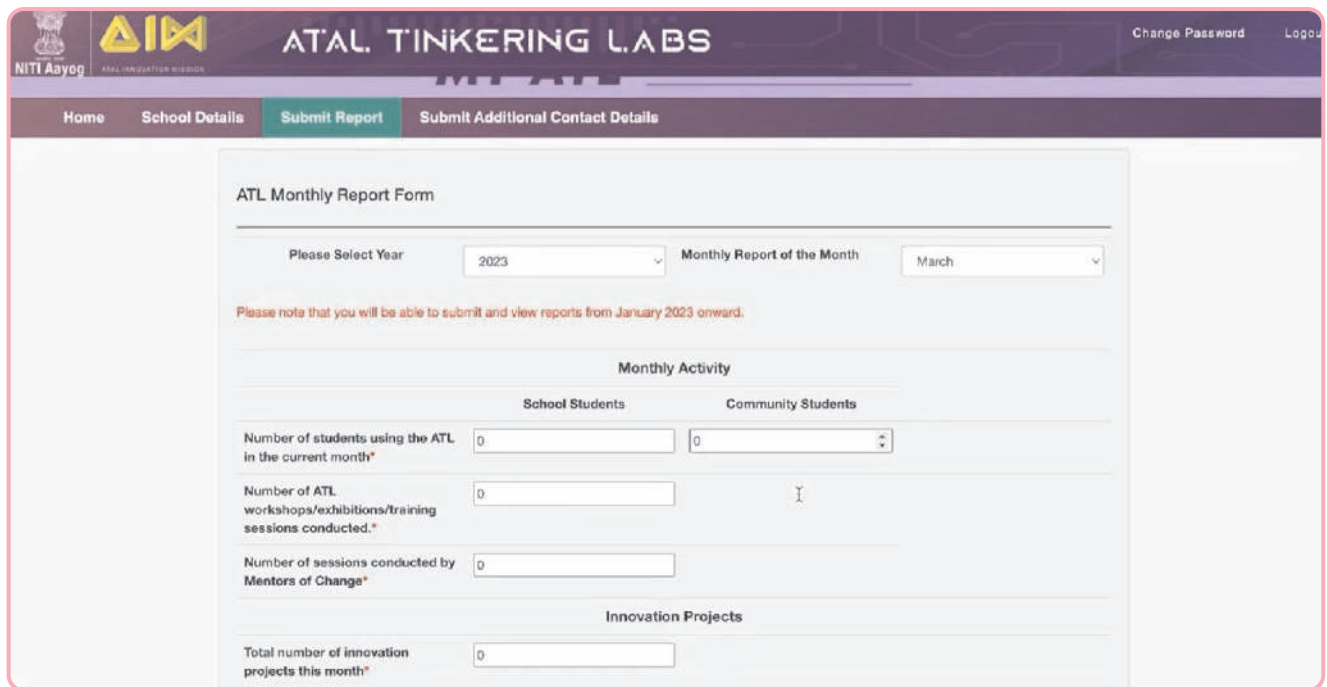


A video on Managing the ATL can be downloaded here:  
<https://www.youtube.com/watch?v=K4qkCe6TAjo>



## 4.7. ATL Dashboard

AIM has developed a dedicated dashboard, also called as 'MyATL Dashboard', which has been developed for filling up the details by the schools and submitting their monthly reports. MyATL dashboard helps AIM to keep abreast of the ATL ecosystem in terms of the students engaged, innovation projects created, and tinkering events organized.



MyATL dashboard is mobile-friendly and can be filled up from any device; collects a comprehensive set of quantitative and qualitative data; and is user-friendly and can be filled up in minutes.



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

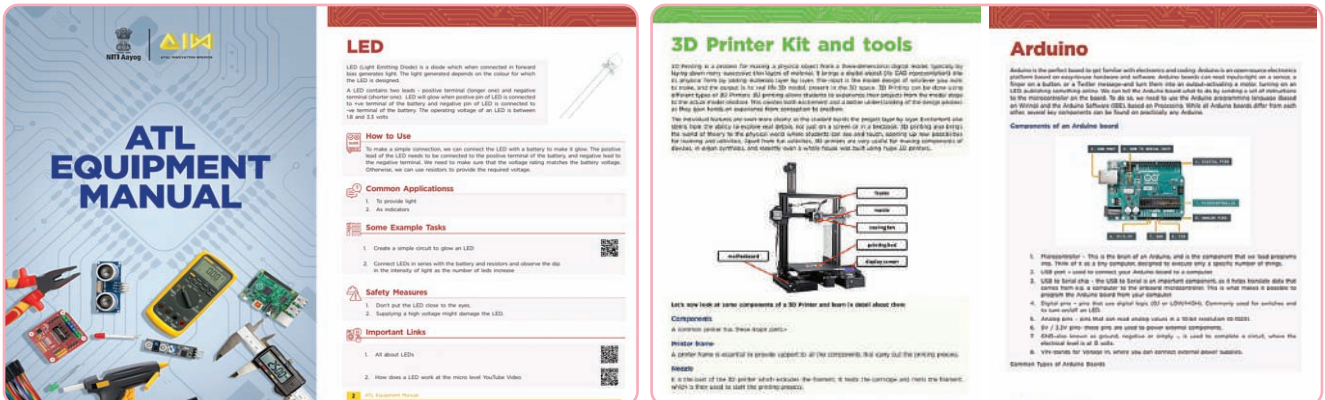


ATLs can easily fill their monthly dashboard using simple steps explained in this video  
<https://youtu.be/-JyPJSF2F1c?feature=shared>



## 4.8. Equipment Manual

The ATL Equipment Manual is a comprehensive guide designed to help educators and students fully utilize the cutting-edge tools available in ATL, including 3D printers, robotics kits, and IoT devices. Recognizing that many ATL in-charges and students are often unfamiliar with operating these tools, this manual offers detailed information about each piece of equipment, including specifications, applications, and project examples, making it a valuable resource for exploration and innovation. AIM has created a playlist of videos explaining the functioning of different ATL equipment.



Equipment Manual (Weblink)  
<https://atl.aim.gov.in/ATL-Equipment-Manual/>



Equipment Manual (PDF)  
<https://aim.gov.in/pdf/equipment-manual-pdf.pdf>



ATL Equipment Video Series  
<https://youtube.com/playlist?list=PLe8QoqrwXb4RmNgn92IzImb4P2gnWRhPS&feature=shared>





## **Chapter - 5**

# **Enable a Vibrant Atal Tinkering Labs Ecosystem**



## 5. Enable a Vibrant Atal Tinkering Labs Ecosystem

This chapter highlights the third phase of the ATL framework – Enable. It will narrate in detail the various activities undertaken by both AIM and the schools to enable an ATL to become a hub of innovation and creativity.

### 5.1. Learning & Capacity Building

Once the ATL gets established, it is important for teachers, students and school ecosystem to get acquainted with the learning and capacity building resources available for them. For teachers/ATL In-charges, it helps in enablement and operationalization of ATL in effective manner.

#### 5.1.1. ATL Calendar of Activities

Once the ATL is fully functional, the ATL in-charge has assumed his/her responsibility with confidence and the students are exploring their way in the world of tinkering, it is important that the ATL organises and participates in regular tinkering activities, to keep the students engaged and inspired.

AIM publishes the yearly ATL Calendar of Activities highlighting a wide range of events, workshops, and competitions that will take place at ATL labs across the year. It acts as a guide for all teachers and mentors to plan activities every month. The calendar has the Tinkering Curriculum integrated into it. There is also a special section called - Activity of the Month which has exciting activities that the students can do in their ATL lab every month.



Link of ATL Calendar- Year 2024-25 :  
<https://aim.gov.in/pdf/ATL-calendar.pdf>

#### 5.1.2. ATL Tinkering Curriculum

The Tinkering Curriculum aims to provide stage-wise structured learning pathways for students to develop and hone their innovation skills through a hands-on, experiential learning approach focused on STEM (Science, Technology, Engineering, and Mathematics). The curriculum focuses on a wide variety of concepts, ranging from basic electronics, mechanics, data visualization, and design thinking to more advanced technologies such as 3D printing and Internet of Things. The curriculum is divided into three levels, each increasing in complexity:

- **Level 1** introduces foundational concepts, including basic electronics, mechanics, 3D design, data visualisation, and design thinking. This stage consists of five modules broken down into 14 sessions, each lasting 60 minutes.
- **Level 2** builds on the basics with a focus on deeper exploration in electronics, mechanics, and 3D printing, while continuing to develop design and entrepreneurial skills. It comprises four modules across 13 sessions.
- **Level 3** delves into advanced topics such as the Internet of Things (IoT), woodworking, and enhanced 3D printing skills. This level includes five modules over 17 sessions, maintaining the hands-on approach throughout.

This step-by-step structure is designed to transition students smoothly from basic concepts to more complex, real-world applications, promoting skills like prototyping and solution development.



ATL Tinkering Curriculum -  
<https://aim.gov.in/atl-tinkering-curriculum.php>

### 5.1.3. Integration of ATL in School Curriculum

To embed innovation into the school education, AIM via the Ministry of Education's notification has mandated 1-2 hour weekly dedicated period in schools with ATLs. This period will offer students dedicated time to explore tinkering activities and hands-on projects, encouraging experiential and project-based learning.

The integration of a weekly ATL period, alongside the ATL Tinkering Curriculum and ATL Calendar of Activities, is a step towards creating an environment where students can actively engage in tinkering and innovation. All ATL schools must incorporate the ATL period in the timetable for each class, every academic year.



Notification Letter from MoE to all Central and State Education Departments and Institutions-  
<https://aim.gov.in/pdf/MoE%20DO%20letter%20dt%202018.06.2024%20reg%20ATL%20Period%20and%20Curriculum.pdf>

### 5.1.4. Capacity Building of Teachers- Unbox Tinkering

The teachers capacity building initiatives under the ATL program are designed to empower ATL In-Charges and teachers through both on-ground and self-paced online training sessions. AIM has developed a flagship teacher training course- Unbox Tinkering Teacher Training, which provides teachers with hands-on experience and practical skills for implementing STEM and tinkering activities in their classrooms. These interactive workshops, conducted at various locations, allow teachers to engage directly with the tinkering tools and resources, fostering a deeper understanding of innovative teaching methods.

In addition to the on-ground sessions conducted by AIM in collaboration with Partners, the self-paced online Unbox Tinkering Teacher Training certification module allows teachers to learn at their own pace, offering flexibility to accommodate their schedules. This platform provides a wide range of digital resources, learning modules, and instructional videos, enabling teachers to enhance their knowledge and apply tinkering concepts in their teaching. These efforts, combined with the tinkering curriculum and specialized learning modules, ensure that educators are fully equipped to guide students in their innovation journey.



Unbox Tinkering Teacher Training -  
<https://aim.gov.in/atl-teacher-training.php>

### 5.1.5. AIoT Integration in Curriculum

The National Education Policy (NEP) 2020 emphasizes preparing students for the Fourth Industrial Revolution by integrating emerging technologies like Artificial Intelligence (AI), blockchain, and IoT into education. In line with this vision, AIM, CBSE, and Intel collaboratively launched a program to integrate AI and Tinkering into school curricula, combining them with subject pedagogies. A comprehensive manual, available on AIM and CBSE websites, provides educators with guidance and exemplar lesson plans to facilitate this integration systematically. These lesson plans include curriculum concepts, real-life problem-solving activities, and design-thinking exercises to enable students to create AI and tinkering-based solutions.





### 5.1.6. Learning Modules

The ATL program offers specialized learning modules designed to equip students with emerging technologies and 21st-century skills such as Artificial Intelligence (AI), Drone Technology, and Blockchain. Developed in collaboration with expert organizations, these modules provide students with both theoretical knowledge and practical applications of advanced technologies. By integrating these modules into ATL activities, students gain the skills needed to build innovative projects that address real-world challenges.



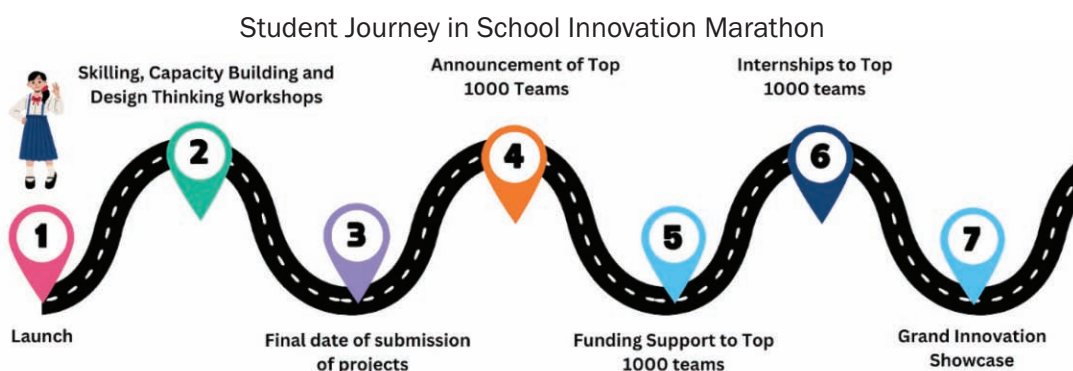
Learning Modules  
<https://aim.gov.in/atl-curriculum.php>

## 5.2. ATL Competitions and Events

The AIM organizes competitions that provide students with a platform to innovate and apply STEM (Science, Technology, Engineering, and Mathematics) skills to real-world problems. These competitions—School Innovation Marathon, ATL Tinkerpreneur, and the ATL Space Challenge and others—aim to cultivate creativity, critical thinking, and an entrepreneurial mindset amongst the young innovators.

### 5.2.1. School Innovation Marathon

School Innovation Marathon (previously known as ATL Marathon) is envisioned as India’s largest school innovation challenge organised jointly by the Department of School Education and Literacy (DoSEL), MoE, Atal Innovation Mission (AIM), NITI Aayog and Ministry of Education’s Innovation Cell (MIC), AICTE, where students from all schools of the country identify community problems of their choice and develop innovative solutions in the form of working prototypes. The Top Teams of School Innovation Marathon have an opportunity to get funding support from the MoE, internship opportunities with leading Corporates and Incubation Centres through the Student Innovator Program (SIP) from AIM, and other recognitions. The top teams get a chance to showcase their innovations at national and international level.



School Innovation Marathon  
<http://schoolinnovationmarathon.org/>



### 5.2.2. ATL Tinkerpreneur

Tinkerpreneur is an 8-week virtual summer bootcamp designed to equip students with digital and entrepreneurial skills, enabling them to create their own online ventures by end of the bootcamp. Facilitated by the Mentors of Change—skilled professionals who volunteer to guide young ATL innovators in developing 21st-century skills and fostering innovation—the bootcamp combines their expertise with insights from industry leaders to provide students with a comprehensive introduction to entrepreneurship. Students learn essential skills like app development, digital marketing, and business modelling. By the end of the program, participants present their digital products or businesses, with top students receiving focussed handholding and funding opportunities, helping students experience entrepreneurship first hand.



Brochure link -

<https://aim.gov.in/pdf/Tinkerpreneur-2024-Brochure.pdf>

### 5.2.3. ATL Space Challenge

ATL Space Challenge, conducted in collaboration with ISRO and CBSE, invites students to explore space-related innovative solutions. This competition aims to spark interest in space technology and science, covering themes such as satellite communication, space sustainability, and data analysis. Winners get the chance to connect with experts from ISRO.

### 5.2.4. SheSTEM

Atal Innovation Mission (AIM), the Office of Science & Innovation, at the Embassy of Sweden, in partnership with Nordic collaborators - Innovation Norway, Innovation Centre Denmark, and Business Finland, organise SheSTEM. This annual initiative celebrates the contributions of women in STEM and serves as a catalyst to inspire the next generation of innovators by encouraging young minds to explore careers in science, technology, engineering, and mathematics (STEM).



### 5.3. Engaging Local Ecosystem

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, government bodies can make significant contribution towards providing support and creating awareness about the ATL innovation activities. Local government bodies can help the ATL school to identify meritorious students of the community with proven innovation potential, who could be involved in the ATL activities. A special timetable to accommodate such students and other students from the community could also be designed.

#### 5.3.1. ATL Community Day

ATL Community Day is an annual celebration held in April to commemorate the birth anniversary of Dr. B. R. Ambedkar and promote equal opportunities for innovation. This nationwide event brings together children from nearby non-ATL schools, NGOs, social welfare organizations, and local communities to experience the transformative power of tinkering and innovation. ATL Schools open their doors to conduct hands-on workshops, tinkering sessions, and innovation showcases. Schools are encouraged to leverage ATL resources to host a variety of activities, such as upcycling projects, prototyping, and DIY sessions. Mentors, parents, and teachers play an integral role in facilitating these activities, aimed to introduce children with limited access to the Atal Tinkering Labs' philosophy, sparking curiosity and critical thinking.



Community Day Brochure -  
[https://aim.gov.in/pdf/ATL\\_Community\\_Day.pdf](https://aim.gov.in/pdf/ATL_Community_Day.pdf)

### 5.3.2. ATL Parents’ Day

Orientation sessions could be extended to the parents, as they are important stakeholders in nurturing the innovation mindset of the students by providing them with the support needed. ATL Parents Day, is a unique initiative to engage parents in the world of innovation and creativity fostered within ATLs. This event provides an opportunity for parents to experience the tinkering activities their children undertake, encouraging a deeper appreciation for hands-on learning and innovation. ATL Parents Day can be conducted in a 2-hour session including ATL tour, projects showcase, interactive sessions, and parent-student hands-on tinkering sessions. Schools may organize ATL Parents Day separately or merge with any other school events like Annual Day, Parents Teachers Meetings etc.



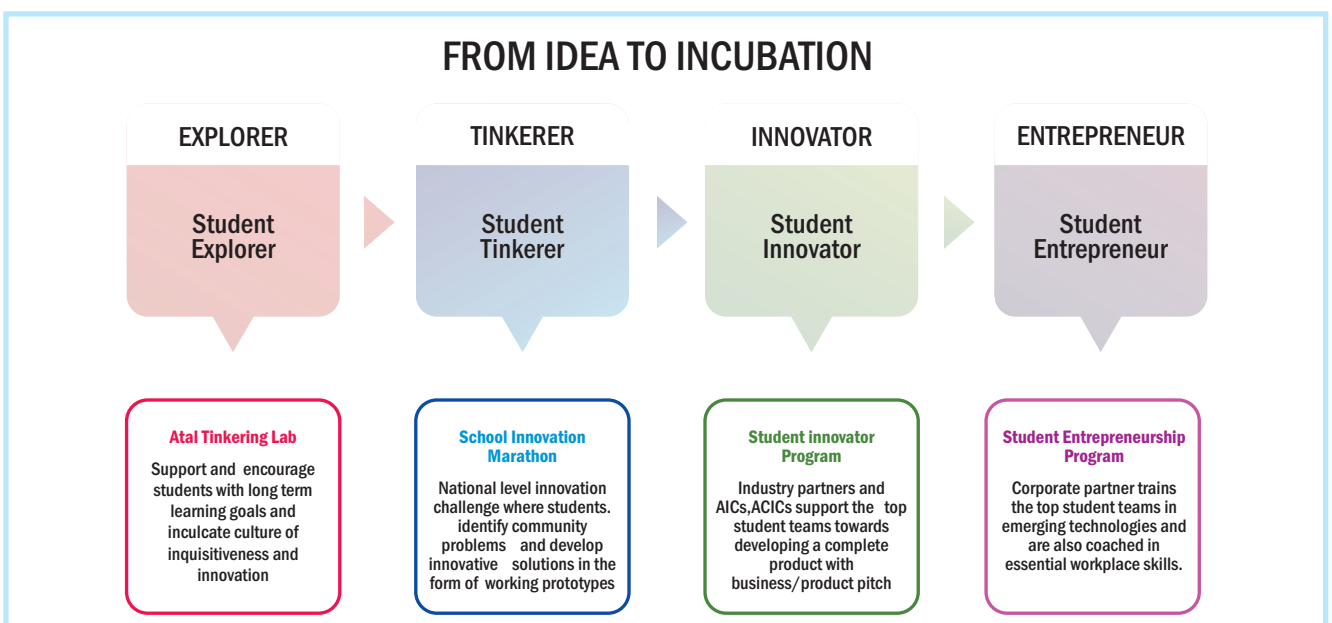
Link to Parents’ Day brochure:  
<https://drive.google.com/drive/folders/1bGob1RbzNVA2roRa2-JevdY1CRjR0iWz>

### 5.3.3. Collaboration with NGOs, community centers, higher education institutions

The ATL In-charge could collaborate with local NGOs, higher education institutions and other support groups to provide the ATL students with guidance and mentoring. This will also help to increase awareness and involve more students from the community in ATL activities.

### 5.4 Immersive Programs for AIM Competitions Winners

In ATL, students undergo a journey of tinkering and innovation, wherein they experience design thinking, ideation which helps them to develop a new perspective, towards social and community problems. As the students progress further in the journey, they are introduced to new concepts of innovation to refine their innovative solutions and prototypes. And finally, they learn entrepreneurship concepts to make their products market ready.





### 5.4.1 Student Innovator/Internship Program (SIP)

The top teams of School Innovation Marathon undergo a special program called as Student Innovator/Internship Program (SIP), where the students with the most ingenious idea(s) are trained on business and entrepreneurial skills. AIM's incubation centres and industry partners support the student teams towards developing a complete product package with business/ product pitch and test their innovation on-ground. The students are trained in emerging technologies and are also coached in essential workplace skills. The program is designed so students can experience the corporate/incubation centre environment, gain exposure to new technologies and prepare themselves for future workforce and entrepreneurship.



SIP Handbook  
[https://aim.gov.in/pdf/SIPHandBook\\_Digital.pdf](https://aim.gov.in/pdf/SIPHandBook_Digital.pdf)

### 5.4.2 Student Entrepreneurship Program (SEP)

The Student Entrepreneurship Program (SEP) builds on the SIP by taking student innovations a step further, transforming students from being innovators to entrepreneurs. Over ten months, selected teams work with mentors from AIM industry partners to refine their innovations and develop entrepreneurial strategies. SEP aims to provide hands-on experience in product development, patent filing, branding, and community testing, ensuring that student entrepreneurs gain the confidence and skills to launch their products successfully.



### Case Study

#### SEP- STFE in collaboration with la Fondation Dassault Systemes

The last edition of SEP-STFE (Student Entrepreneurship Programme - Seed the Future Entrepreneurs) witnessed participation from 140 schools across 29 states and union territories, fostering innovation and entrepreneurship among students. In this eight-month journey, student teams formed pseudo startups by designing products using 3D technology, creating marketing strategies, and tackling real-world challenges. A unique feature of SEP is the active involvement of employees from Dassault Systèmes, who mentor teams, sharing expertise in design, technology, and business to refine their ideas.



### 5.4.3 Atal Catalyst Program

To scale, improve and develop Go-to-market strategy for the digital ventures of top 100 students of ATL Tinkerpreneur, AIM and Indian School of Business (ISB) jointly conduct the Atal Catalyst Program. The top students are guided through customised masterclasses and mentorship sessions, pairing each team with ISB alumni mentors based on their expertise. After refining their products and pitches, the top 20 teams present their final products at the Big Pitch event, where 10 innovative ideas get funding.



Compendium of top 20 innovations of Atal Catalyst Program -  
<https://aim.gov.in/pdf/Coffee-Table-Book-Student-Teams-of-Tinkerpreneur-V5.pdf>

### 5.5 ATL Industrial Visits

Industrial visits for ATL students introduce a transformative learning approach by bridging theoretical knowledge with practical exposure to the latest technologies and manufacturing processes. These visits allow students to experience real-world applications of concepts such as AI, IoT, robotics, and automation, enhancing their understanding of modern industries. By observing state-of-the-art facilities, machinery, and processes, students gain insights into real-time operations and innovative problem-solving techniques, inspiring them to integrate these learnings into their projects at ATLS.

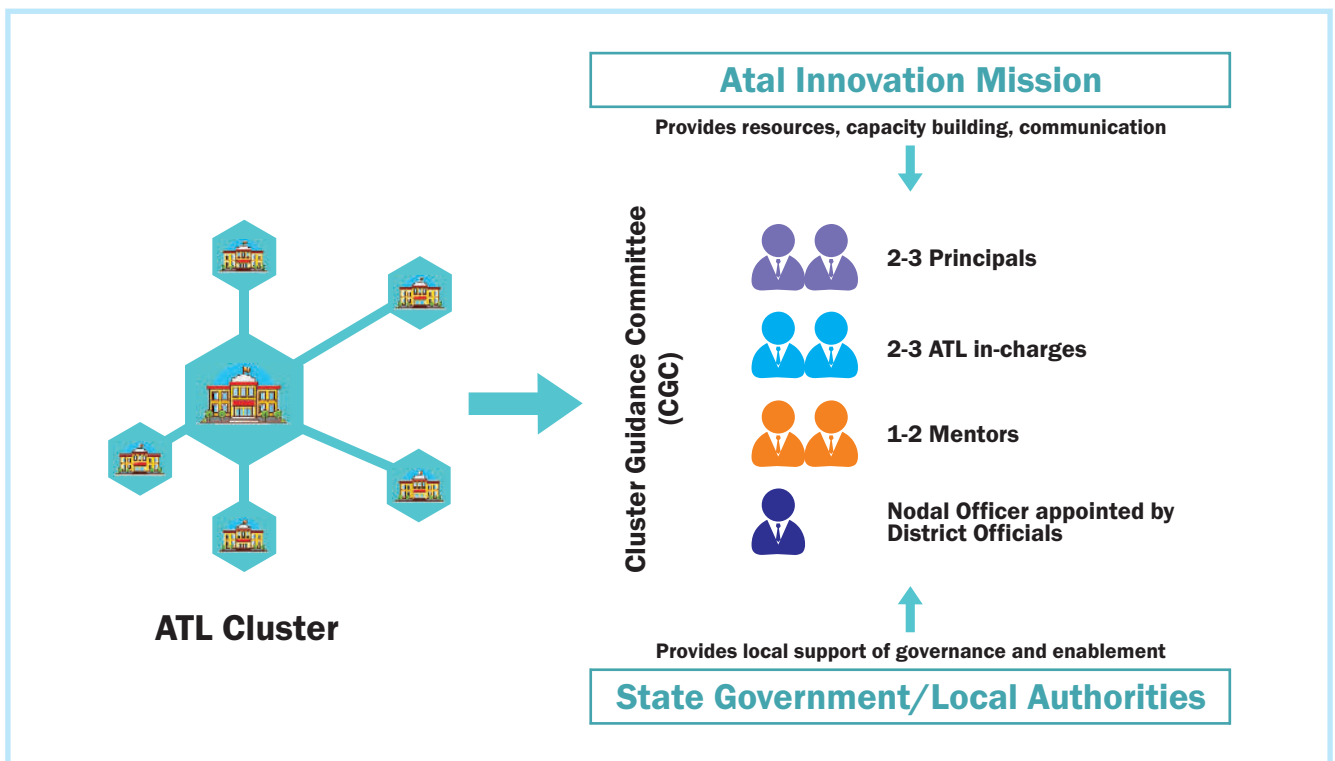




## 5.6 ATL Sarthi

ATL Sarthi is a cluster-based assessment tool and framework which aims at providing a self-sustainable model to enhance the performance of the ATLs. Under ATL Sarthi, the ATLs and local authorities/ institutions work in tandem with each other on-ground to form clusters of 20-30 ATLs in a particular region. These ATLs can learn from each other through training, collaborations, events and adopting best practices. This provides a sustainable model which clearly defines and assigns ownership by way of following a decentralized approach and leverages the concept of cooperative federalism.

Each ATL cluster is managed by a Cluster Guidance Committee (CGC), composed of school principals, ATL in-charges, mentors, industry/ higher education institutions and state government nominated nodal officers. This body monitors progress, ensures compliance, and provides mentorship. State and district education officials oversee operations, while AIM facilitates resources, training, and communication.



## Case Studies of ATL Clusters

### “ **Mysore District Cluster (ExcelSoft Foundation):**

Established with 18 ATLs, it employs a hub-and-spoke model, led by an ATL, Excel Public School. Through workshops and regular interactions, it has enhanced teacher participation and student innovation, with over 100 innovation projects initiated.

### “ **Aspirational Districts (AIM & ADP Collaboration):**

Targeting socio-economically challenged areas, this program supports 1,174 ATLs in aspirational districts, fostering innovation in underserved regions.



**MGNF Fellows Collaboration:**

Fellows from the Mahatma Gandhi National Fellowship program have assisted 40+ ATLs across 15 districts by identifying operational gaps and offering strategic solutions.



## 5.7 Support & Communications

### 5.7.1 ATL Query Resolution & Support

AIM provides regular support to all ATLS in getting their Queries resolved through online query portal and help Support.

ATL website provide three different platform to resolve the queries of the ATLS

**ATL FAQs:** to simplify access to critical information, encourage better utilization of resources, and support smooth implementation and operation of the Atal Tinkering Labs.



ATL FAQs

[https://atl.aim.gov.in/cgrms/register/ATL\\_FAQs.pdf](https://atl.aim.gov.in/cgrms/register/ATL_FAQs.pdf) .

**ATL Chatbot:** available on the AIM Website to facilitate schools to get rapid and simple solutions to their questions.

**Open house sessions:** held twice every month, this session gives a chance to ATLS to ask their queries for real time resolution. AIM also leverages this platform to share information of latest ATL activities and events.

**ATL Query Resolution Portal:** online platform established to provide support and guidance related to the ATL setup, operations, events and activities. Schools raise their Query describing the issue over the portal and can get personalized solutions for their queries.



Link to ATL Query Portal-

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



Link to ATL Query Portal Manual :

[https://www.youtube.com/watch?v=97BZolpv\\_Tc](https://www.youtube.com/watch?v=97BZolpv_Tc)

## 5.7.2 ATL Messenger Groups

Social media and messaging platforms play a crucial role in expanding the reach and impact of ATLs. These platforms not only help in showcasing the innovations and achievements of students but also help in quick communication with ATL In-charges, mentors and other stakeholders.

### **Social Media**

Schools are encouraged to leverage social media channels like Facebook, Twitter, and YouTube to share their ATL activities, innovation stories, and achievements. By creating dedicated social media accounts, schools can spread awareness about their work, invite community participation, and inspire other students and schools to engage in similar initiatives. ATLs are advised to tag Atal Innovation Mission (AIM) and NITI Aayog in all posts, along with using the hashtag #AIMtoInnovate to increase visibility. On Twitter, schools are encouraged to use @AIMtoInnovate, and on YouTube, @AIMtoInnovate should be tagged for better engagement with the wider community.

### **WhatsApp Groups**

To foster collaboration, peer-to-peer learning & enable smooth communication among ATLs, AIM has created state-wise WhatsApp groups for ATLs. These groups serve as platforms for quick information sharing, celebrating achievements, and discussing best practices. Schools use these groups to communicate effectively, exchange ideas, and resolve challenges collectively, creating a sense of community among ATLs nationwide.

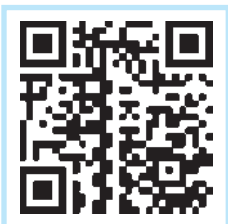
### **Weekly Communication with ATLs**

AIM ensures seamless communication with all ATLs through weekly emails, delivering essential updates and information. These emails cover a range of topics, including compliance requirements, upcoming events, competitions, and important announcements. This regular engagement helps ATLs stay informed, aligned, and actively involved in AIM initiatives.



### 5.7.3 ATL Newsletters

The ATL newsletter, released by AIM every month, captures the important activities, events, achievements of the students, teachers, schools and mentors nation-wide and important announcements for the ATL schools. It provides the snapshot of ongoing efforts of ATL stakeholders, celebrating milestones and motivating others to progress towards the journey of innovation.



ATAL newsletter link :  
<https://aim.gov.in/atl-newsletters.php>











## 6 Celebrate Tinkering & Innovation

This chapter elaborates on a very important aspect of any program – recognition and celebration. For a program moulding the thinking of a child from a young age, the chapter illustrates the need for highlighting the achievements of young tinkerers who are learning how to think like an innovator, empathise with fellow citizens while overcoming their fear of failure with persistence.

### 6.1 Recognition

In this journey, AIM seeks to not only celebrate the eureka moments of the hard-working young student innovators but also celebrate the victory of the unsung heroes such as teachers, mentors, parents and community members who have contributed to their success.

#### 6.1.1 Exemplary Teachers of Change

ATL In-charges are the backbone who are driving the ATL initiative forward in their schools and local communities. They are the unsung heroes who deserve every bit of appreciation and encouragement from their students, the school and most importantly the AIM. The ‘ATL Exemplary Teachers of Change’ (ETOC) book is an attempt towards recognizing the outstanding work done by ATL In-charges for their students, community, and ATL itself over time. The book aims to celebrate their hard work and dedication, inspiring others to persistently cultivate an innovative mindset among India’s youth.



EToC Book

[https://www.aim.gov.in/pdf/AIM\\_EToC\\_Book\\_4.pdf](https://www.aim.gov.in/pdf/AIM_EToC_Book_4.pdf)

#### 6.1.2 GEMS of Mentor India

Every year, AIM acknowledges the great work being done by the Mentors of Change and releases a book called the ‘Gems of Mentor India’. This book highlights the mentors who through their consistency, hard-work and dedication have gone an extra mile to help furthering the innovation journey of young tinkerers.



GEMS of Mentor India book

[https://aim.gov.in/pdf/Mentors\\_of\\_India\\_27\\_January\\_2019.pdf](https://aim.gov.in/pdf/Mentors_of_India_27_January_2019.pdf)

### 6.1.3 ATL of the Month

ATL In-charges take the responsibility to engage students, allow them to tinker freely, learn new technologies themselves and adopt a new teaching pedagogy. To recognize their effort and engagement with ATL via the MyATL Dashboard, AIM announces the list of - ATLs of the Month- from each state of India. Through this initiative, AIM also wishes to emphasize the importance of regularly and accurately filling the MyATL Dashboard which is the primary source for AIM to know the best practices being followed across ATLs in India and their level of engagement and activity.



ATL School of the month  
<https://aim.gov.in/school-of-the-month.php>

### 6.1.4 Social Media Posts

AIM actively promotes the efforts of students, teachers, and mentors by sharing their innovation stories on social media platforms. These posts highlight the transformative impact of ATL in fostering an innovation-driven mindset across the country and serve as a source of inspiration and recognition for stakeholders. By celebrating their contributions, AIM reinforces its commitment to the national mission of nurturing creativity and innovation, while motivating others to actively engage in this movement.

### 6.1.5 Coffee Table Books

The ATL Coffee Table Books serve as a vibrant showcase of the innovation journey within ATLs. These publications are designed to capture and celebrate the creativity, ingenuity, and accomplishments of young innovators across the country. The purpose of the Coffee Table Books is to document inspiring stories, notable projects, and key achievements from ATLs. It aims to celebrate and boost the students who came up with exemplary ideas put forth to them in ATL competitions- Innovation Marathon and Tinkerpreneur, offering a glimpse into how students are tackling real-world problems through technology and design thinking.



Links of All ATL Coffee Table Books-  
<https://aim.gov.in/atl-pioneers-club.php>

## 6.2. Regional Teachers of Change (RToC) and Regional Mentors of Change (RMoC)

Regional Mentor of Change (RMoC) and Regional Teacher of Change (RToC) are pivotal members of the Atal Innovation Mission (AIM) ecosystem, representing the best mentors and ATL In-charges from across the states. Selected for their exemplary contributions, they serve as the connecting link between AIM and the broader community of teachers and mentors. Acting as first-level troubleshooters, RMoCs and RToCs play a crucial role in resolving on-ground challenges, supporting schools in effectively utilizing their ATLs, and ensuring the successful implementation of AIM initiatives. Their leadership fosters collaboration and innovation within their regions, strengthening the overall ecosystem.

RMoCs and RToCs maintain a direct communication channel with AIM, ensuring a seamless flow of information and updates. Regular interactions with AIM keeps them informed about new programs, resources, and policies, enabling them to guide their communities effectively.

## 6.3. Mentor Round Table

Mentor India Round Table is an annual event that honours the dedication and contributions of the top Mentors of Change (MoC). This event, led by Atal Innovation Mission (AIM), recognizes the essential role that mentors play in fostering a culture of innovation and entrepreneurship among ATL students. The Round Table is a platform to celebrate achievements, address challenges, and strengthen the collaborative ecosystem that nurtures young innovators.





## **6.4. Showcase Opportunities (National & International)**

Students who demonstrate exceptional innovation in their ATLs are given opportunities to showcase their projects at both national and global levels. These platforms are designed to celebrate creativity, encourage problem-solving, and provide young innovators with recognition, feedback, and inspiration from experts in the field.

### **6.4.1. National Showcase**

At the national level, ATL students participate in several events. National Technology Week 2023 with the theme "School to Startup: Igniting Young Minds to Innovate", held at Pragati Maidan in New Delhi, was one such platform. It brought together over 5000 school students, 800 exhibitors, and 100+ startups, with a focus on ATL student innovators. A highlight of the event was the interaction between the Hon'ble Prime Minister and ATL students, where he inspired them to contribute to the nation's progress. Another event was the third anniversary of the National Education Policy (NEP) in 2023, which featured 40 student teams from ATLs, showcasing their innovations to the Hon'ble Prime Minister, reinforcing the importance of integrating innovation in school education.







### 6.4.2. International Showcase

The global showcase platforms provide students with a unique opportunity to understand global challenges, exchange ideas, and gain recognition on the international stage.

At the Startup20 Shikhar Summit held in Gurugram under India's G20 presidency, three ATL student teams were invited to showcase their innovative projects. The summit, attended by over 700 national and international delegates, also featured startup showcases, investor pitches.



ATL students have also made their mark on international platforms. A prime example is the 2024 International Creativity and Innovation Award held in Thailand. Two ATL girl innovators won a silver medal for their invention. This achievement reflects the global competitiveness and ingenuity of ATL projects.

Additionally, ATL students regularly participate in international competitions like the World Robot Olympiad, India International Science Festival, IRC Open League and more, where they present their innovative ideas and connect with peers and experts from around the globe



These national and global opportunities are essential in motivating young minds to innovate, helping them transform creative ideas into impactful solutions, and showcasing the potential of India's next generation of innovators.



## 6.5 Success Stories

### 6.5.1 Students with Patents & Grants

#### **Ravinder Bishnoi**

Ravinder Bishnoi, an ATL student from a government school in Rajasthan, exemplifies the transformative impact of the Atal Tinkering Labs (ATL) initiative. His journey began in 2017 when he participated in the ATL Marathon, securing a top position with his innovative idea to combat noise pollution. Inspired by ATL sessions in school, Ravinder developed the Vehicle Horn Control Assembly (VHCA), a device that blocks horns or reduces their intensity in restricted areas. He learned the process of securing a patent and making the product market-ready through a boot camp organised in Ajay Kumar Garg Engineering College, Uttar Pradesh. He was granted a patent for his invention. Recognised for his potential, he was offered the Student Innovator Programme (SIP). Later, he participated in an Ideathon organized by Atal Community Innovation Centres (ACIC) RISE in Mohali, where he secured 1st rank. This achievement led to his startup, KieKie Pvt Ltd, being incubated at ACIC RISE. His dedication was further rewarded under the Atal New India Challenge (ANIC) 2.0, earning a grant of ₹1 crore. Ravinder's success underscores the ATL initiative's role in nurturing innovation and empowering young minds to address real-world challenges.

#### **Avigyan Kishor Das**

Avigyan Kishor Das, an ATL student from Hooghly, West Bengal, has received patent for his innovation, the "Touch-Free Portable Automatic Hand Sanitizing System," developed in the ATL Marathon 2020-21 to fight against COVID-19. For his exceptional work, he received the prestigious National Intellectual Property Award 2023 (Under-18 category). Avigyan also contributed to the "Responsible AI for Youth Programme," initiated by the MeitY, Government of India. In recognition of his achievements, he was invited as a distinguished guest to the 2024 Republic Day and has been nominated for the Rashtriya Bal Puraskar 2025. He was awarded the first prize in the "Nav Bharat Nirman" competition in India International Science Festival, 2019, held at Kolkata for his device, "Safety and Alert for Excessive Pollutant" designed to reduce automobile pollution.

#### **Himangi Haldar**

Himangi Haldar, an ATL student from a rural ATL school in Bilaspur received a patent for her innovation 'Vessel to Reduce Wastage of Liquid', an anti-milk spilling device designed to avoid milk from spilling while boiling. She has received the National Inspire Award for this innovation presented by the Union Minister Dr. Jitendra Singh. The innovation also received an Excellence Certificate at the International Grassroots Innovation Forum's fourth session in Malaysia. Himangi has represented India at the Japan Innovation Festival, 2024.

## 6.5.2. Students with Startups

### **Rohit Sinha**

With the help of the right resources and mentors provided by the ATL, Rohit Sinha founded a startup, Leidlik, which bridges educational and developmental gaps in rural India. His startup has provided free education to over 10,000 students, fostering innovation and connecting them with industry leaders. With his startup, he is able to spread the mission of Atal Tinkering Labs to regions where students do not yet have the right resources to innovate. He has also published the book, 'School to Startup' which is a collection of notes designed to help and guide other students on their educational and entrepreneurial journeys.

### **SaafWater**

Emerging from the ATL Marathon 2017, the team of 4 students from different ATLs across the country, TechXcl launched Saafwater, an AI-IoT solution for real-time water quality monitoring. SaafWater helps one decide whether a specific quantity of water is safe for consumption. The device is to be installed near the source of groundwater and is compatible with community standards. This low-powered and cellular-enabled device monitors Total Dissolved Solids (TDS), pH Value, and more. Saafwater is the Global Winner of the prestigious IBM Call for Code Global Challenge, 2021. The students also participated in different competitions like the AIM-Sirius Innovation Summit (2019), InSprenur - India Singapore Innovation Summit (2019), Indo-Russia Research and Innovation Program at Sirius Centre (2020).

### **Aryan Singh**

Aryan Singh, founder of Mera SATHi and AgRobot (RoBo), was awarded the prestigious Pradhan Mantri Rashtriya Bal Puraskar and has been honoured by President Draupadi Murmu. He had the opportunity to present his invention, 'Mera Sathi AgriTech' to the Honorable Prime Minister at the Rising Rajasthan Summit, 2024. His innovation, a robot that can perform different functions like sowing seeds, digging the field, soil sensors, harvesting, and water pumping, aims to help farmers cut down their costs. He has won the ATL App Innovation Challenge 2020, the Young Scientist of India Award 2020, the Russian Young Innovator Award 2021, Canada (Toronto) Young Innovator Award (Silver Medal) 2021. He has also been selected among the top 100 innovators at ATL Tinkerpreneur.

### 6.5.3. National Awardees

#### **Suhani Chauhan**

Suhani Chauhan has been awarded the Pradhan Mantri Rashtriya Bal Puraskar for her invention 'So-Apt', a unique solar-operated agri-vehicle for small farmers. It is a multifunctional vehicle with zero carbon emissions. The vehicle can be used for sowing seeds, irrigation, spraying, hole digging, and other agricultural needs. Suhani promises that with the help of the vehicle, the reduction of carbon emissions per year would be about 272,000 metric tonnes of CO<sub>2</sub> which in carbon credits would add

### 6.5.4. International Awardees

#### **T Ravi Kiran**

The ATL initiative has been a powerful platform for young innovators like T Ravi Kiran, an 18-year-old from Telangana. Ravi's groundbreaking device, "Blind Eye," is a wearable assistive tool designed to aid visually impaired individuals by providing real-time obstacle detection, facial recognition, and multilingual text-to-speech capabilities. Emerging from the Youth for Social Impact program in collaboration with the Government of Telangana, his invention gained support from AIM's Incubation Center - AIC ALEAP WEHUB. Traversing from an ATL student to AIC and ACIC incubated startup, Ravi has exemplified the true power of Atal Tinkering Labs.

#### **Jeya Malhotra, Rohit Sinha and Nikhil Tyrone Lemos**

Jeya Malhotra, Rohit Sinha and Nikhil Tyrone Lemos won the Diana Award, 2024 for Social Impact and Innovation.

Jeya is a founding member of 'Tinker Champs', student led peer-mentoring initiative. She has mentored over 90,000 students across India, teaching them crucial skills for launching digital ventures and becoming changemakers. She has created 'BizBox' which is an entrepreneurship kit used by over 100 students. She also led 'Maker Faires', engaging 500 participants in innovation and collaborated with Atal Innovation Mission. Her efforts have made it possible for students from unserved/underserved areas to become familiar with tech and innovation.

Rohit founded 'Leidlik' to bridge educational and developmental gaps in rural India. Through initiatives like TechMastering, Innovation Port, and Nexture Summit, he has provided free education to over 10,000 students in need, fostering innovation and connecting them with industry leaders. He is also spearheading ambitious projects in Rasabeda and Phulbani, a rural village in Jharkhand and Odisha respectively.

Nikhil is the creator of 'Meditel', a device ensuring timely medication adherence, enabling safer, more independent health management. He also founded 'Elder Allies,' which connects students and older people through tech workshops teaching essential digital skills like online communication. His initiatives promote independence for older people and inspire young people to engage in meaningful community service.









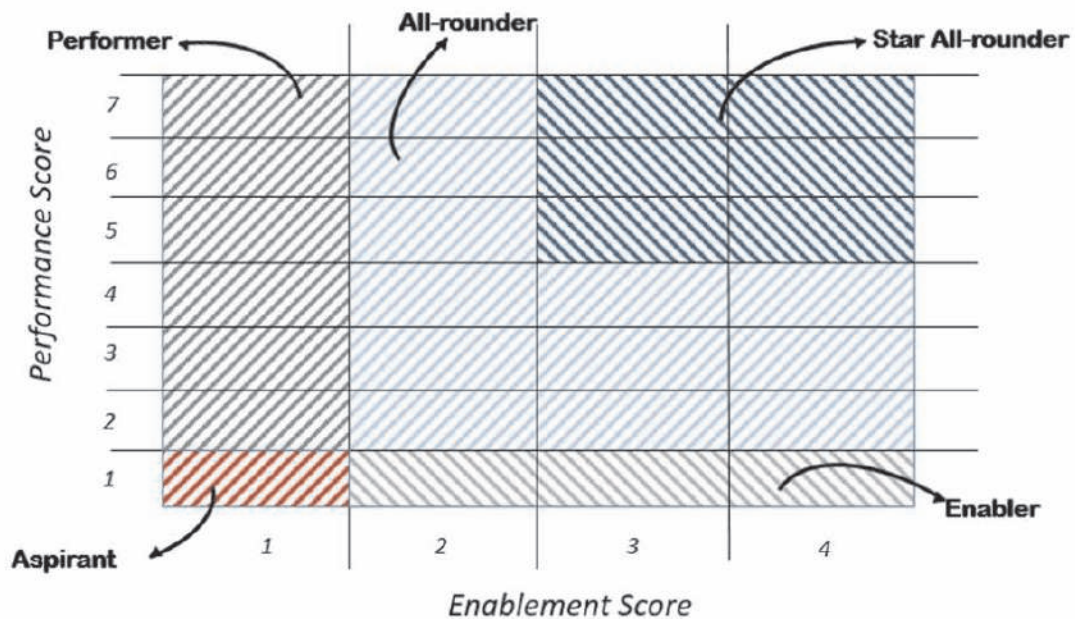
## 7. Evaluation of Atal Tinkering Labs

### 7.1. ATL Dashboard

AIM has developed a dedicated dashboard, 'MyATL Dashboard', schools to fill up the details and submit their monthly reports. MyATL dashboard helps AIM to keep abreast of the ATL ecosystem in terms of the students engaged, innovation projects created, and tinkering events organized.

### 7.2 School Innovation Ranking

The School Innovation Ranking is designed to categorize Atal Tinkering Labs (ATLs) into five outcome bands based on two critical pillars: Performance and Enablement. This Performance and Enablement (PE) Framework is a tool for evaluating the effectiveness of the ATLs and guiding them in enhancing their overall impact. By placing ATLs in different bands, the framework helps identify both the strengths and areas that require further development, allowing schools to focus on continuous improvement. The framework allows schools to see where they stand within the broader landscape, helping them target specific areas for improvement and providing clarity on the path forward.



The Star All-rounder category represents the top-performing ATLs that excel in both Performance and Enablement. These labs demonstrate exceptional outcomes across all parameters, from innovation to resource management, setting a high standard for excellence. The All-rounder category, while still strong in both pillars, does not reach the same level of excellence as Star All-rounders but remains consistent and well-rounded. The Performer category includes ATLs that excel in performance but may lack the necessary enablement to support and sustain their success. Enabler ATLs have a strong support system in terms of enablement but struggle with delivering measurable results in performance. Aspirant ATLs are at the beginning stages of development or are facing significant challenges in both performance and enablement.

### 7.3 Impact and Evaluation Studies

AIM has conducted independent third-party assessments to evaluate the impact of ATLs on various stakeholders viz. Students, teachers, community etc.

The most recent third-party assessment study was done in the year 2023-24. This comprehensive assessment utilized both quantitative and qualitative parameters to gauge the success of ATLs in fostering innovation among students, teachers, and parents. The assessment was based on interviews with the ATL school principals and the ATL In-charges, focus group discussions with ATL students, parents and mentors. The important learnings from the assessment are as follows:

- 84% of the schools considered ATL as a pathway to promote design tinkering and attract students to science and technology
- The introduction of ATL has positively influenced students' perceptions of STEM in 74% of ATLs
- After the establishment of ATL in the school, 69% of ATLs reported an increase in the number of students opting to pursue higher studies in science
- ATLs were utilized without any gender bias, benefiting both male and female students almost equally (54:46)
- Rural ATLs outperformed urban schools in terms of the average number of innovations (26 innovations per rural school v/s 25 per urban school)
- Among the sampled ATLs, 5.1 lakh students participated in innovation and science related events and competitions
- 98% of ATLs have an assigned ATL In-charge, taking care of its operations
- Exposure to ATL has provided the teachers with leadership experience in 60% of ATLs
- 55% of ATLs integrated ATL into their educational ecosystem by conducting fixed ATL sessions
- The introduction of ATL has improved academic performance in 69% of ATLs
- The impact and utility of ATL extended beyond the host schools, as 40% of the ATLs were made accessible to community students
- 24% of schools have raised own funds for ATL functioning, showing self-sustenance of labs beyond 5 years of funding



The detailed assessment report can be accessed here  
<https://aim.gov.in/pdf/Assessment-Report-of-Atal-tinkering-Labs.pdf>



## **Chapter - 8**

# **Evolving the Tinkering Paradigm**



## 8. Evolving the Tinkering Paradigm

To ensure that ATLs keep pace with the technological developments, evolving educational landscape and innovation ecosystem, the ATL template must evolve with time. There is a need to identify and implement progressive policies and templates that catalyse the growth of ATLs, through strategic collaborations with educational experts, policymakers, and other stakeholders. Some of the initiatives that will lead to the evolution of ATLs are-

### I. Curriculum Integration Experiments

Education landscape is ever evolving, and ATLs are committed to adapting their curriculum to meet the evolving needs of students. The aim is to create a curriculum that encourages creativity, critical thinking, and problem-solving, at the same time it is integrated into the formal education system. Through ongoing experiments, AIM will work with educators to include emerging technologies into the learning process, making sure that students are not only meeting academic standards but also nurturing their curiosity and innovation skills.

### II. Policy Sandbox

As ATLs grow, it's important to test and experiment with new policies that can improve the program's impact. AIM will work with the right stakeholders to test new policies, ensuring they bring the desired results for the school education ecosystem. These experiments will help shape the future of ATL interventions.

### III. ATL Career Centre

AIM understands that students in ATLs may want to pursue careers that are different from the traditional paths. Some may be interested in careers driven by their skills and innovation. To support these students, AIM will set up the ATL Career Centre. This will create links between ATLs, higher education institutions, and industries, offering students opportunities to explore non-traditional career paths. This includes providing access to top educational institutions, research labs, and industries across the country.

### IV. New Tinkering Templates

AIM plans to design novel ATL templates that are tailored to the specific needs of different regions and communities. This will ensure that every student, no matter where they are, has access to tinkering and innovation opportunities. These templates will help make the ATL program more inclusive and equitable for all.

#### Some new models are -

#### a. Agile ATL

The Agile ATL model is a cost-effective approach designed to democratize access to tinkering and innovation opportunities for students. The Agile ATL initiative reduces costs of establishing ATLs while maintaining the core functionalities of traditional ATLs. The proposed financial support in Agile ATL model is ₹10,00,000 over a period of five years, including initial establishment fund and an operational fund for maintenance and activities. This model also promotes collaboration with local industries, philanthropic organizations, and state governments to enhance lab facilities and support sustainability. AIM in collaboration with CBSE has established 100 Agile ATLs across the country, where AIM is the knowledge partner and CBSE is providing the financial and operational support for these labs.

#### b. PPP ATL

The Public-Private Partnership (PPP) model for ATLs was introduced to expand the reach of tinkering and STEM education across schools in India. This model involved setting up of partner-funded ATLs by tapping into the CSR and private funders' interest of Indian and multinational corporates. In the PPP model, the private partners are responsible for funding the establishment and operational costs of the PPP ATLs, assigning dedicated resource personnel to manage lab, facilitate training, programs, mentoring students, and organizing events such as competitions and innovation fairs. AIM will provide the knowledge resources, curriculum frameworks, and access to its well-established ATL ecosystem. This collaborative approach not only accelerates the reach of ATLs but also strengthens their impact by integrating industry expertise and resources into the education ecosystem.

### **c. Advanced ATLS/Frontier Technology Labs**

To provide access to future technologies and empower youth to innovate, AIM has collaborated with Meta to launch of Frontier Technology Labs (FTLs). The FTL is an advanced version of Atal Tinkering Lab equipped with state-of-the-art infrastructure, including all components of the Tinkering Lab to empower students to innovate using technologies like Artificial Intelligence, Augmented & Virtual Reality, Blockchain, Cybersecurity, Robotics, 3D Printing, and Internet of Things. The labs support the Government's focus on equipping youth with digital skills to succeed in the evolving landscape of technology and the global economy. As part of the collaboration, Meta is providing the financial and operational support for these labs, whereas AIM is the knowledge partner.

### **V. Internationalization of ATLS**

Atal Innovation Mission (AIM) and the World Intellectual Property Organization (WIPO) have partnered to expand India's proven innovation models, such as Atal Tinkering Labs (ATLs), to nations in the Global South and other transitioning economies.

Aim has developed a guidance document to implement the ATL framework in diverse international educational and cultural contexts. This includes selection and setting up ATLs, operational support, teacher training programs, and fostering partnerships with local industries and academia. Regular engagement activities like hackathons, competitions, and cultural exchanges ensure sustained participation, while a robust monitoring and evaluation framework measures impact and scalability. The detailed program framework is given below:

#### **Selection**

Objective: Identify schools best suited for ATL implementation to maximize impact and inclusivity.

- Criteria for Selection:
  - o Schools catering to middle and secondary-grade students in underserved or high-potential regions.
  - o Preference for schools with a demonstrated interest in STEM education or innovation.
  - o Consider factors such as geographic distribution, population density, and accessibility.
- Inclusivity: Ensure ATLs are shared with students from nearby schools to expand reach and foster collaboration.
- Nodal Agency: A designated agency in the host country (e.g., innovation agency, education department) will oversee the selection process in consultation with AIM and WIPO.

#### **Establishment**

Objective: Equip schools with state-of-the-art tinkering infrastructure tailored to local needs.

- a. Infrastructure Setup: Standard template, guidelines and SOPs shared by AIM with the host country
- b. Customization: Adapt equipment and training content to meet the host country's educational objectives.
- c. Branding and Compliance: Adherence to pre-approved branding, integrating cultural and educational themes unique to the host nation.

#### **Enable**

Objective: Build capacity and sustain engagement through training, mentorship, and partnerships.

- a. Training and Capacity Building:
  - o Teacher Training: Conduct on-site and virtual training programs on ATL operations, STEM pedagogy, and creative teaching methods.
  - o Mentorship Network: Develop a network of "Mentors of Change" (MoC) comprising local experts, industry professionals etc

- o Resources and Content: Provide access to AIM’s repository of guides, videos, and hand-holding resources for teachers and students.
- b. Academic and Industry Linkages: Forge partnerships between ATLs, higher education institutions, and local industries to foster innovation projects and provide technical expertise.

**c. Engagement Activities:**

- o Organize hackathons, competitions, and innovation challenges to sustain interest and creativity.
- o Implement “Sister ATL” partnerships to enable cross-cultural exchanges and collaborative problem-solving between Global South ATLs and Indian counterparts.
- o Conduct community days, workshops, and awareness drives to engage broader communities and stakeholders.

**Evaluate**

**Objective:** Ensure program sustainability and scalability through systematic tracking and feedback.

- a. Performance Monitoring: Use online dashboards to track ATL activities such as teacher training, student workshops, and innovations.
- b. Decentralized Oversight: Form regional ATL clusters monitored by local education officials, supported by NGOs, industry, and academia.
- c. Impact Assessments: Conduct periodic evaluations to measure ATL outcomes and refine the program for expansion.

**Celebrate**

**Objective:** Promote the ATL initiative and recognize achievements locally and globally.

- a. **Local Recognition:** Conduct community and national-level showcases, exhibitions, and award ceremonies for student innovations.
- b. **Global Engagement:**
  - a. Encourage participation in international STEM and innovation competitions.
  - b. Highlight collaborative efforts through social media and international forums.
  - c. Cultural Exchange: Launch exchange programs to foster cross-cultural learning and collaboration.









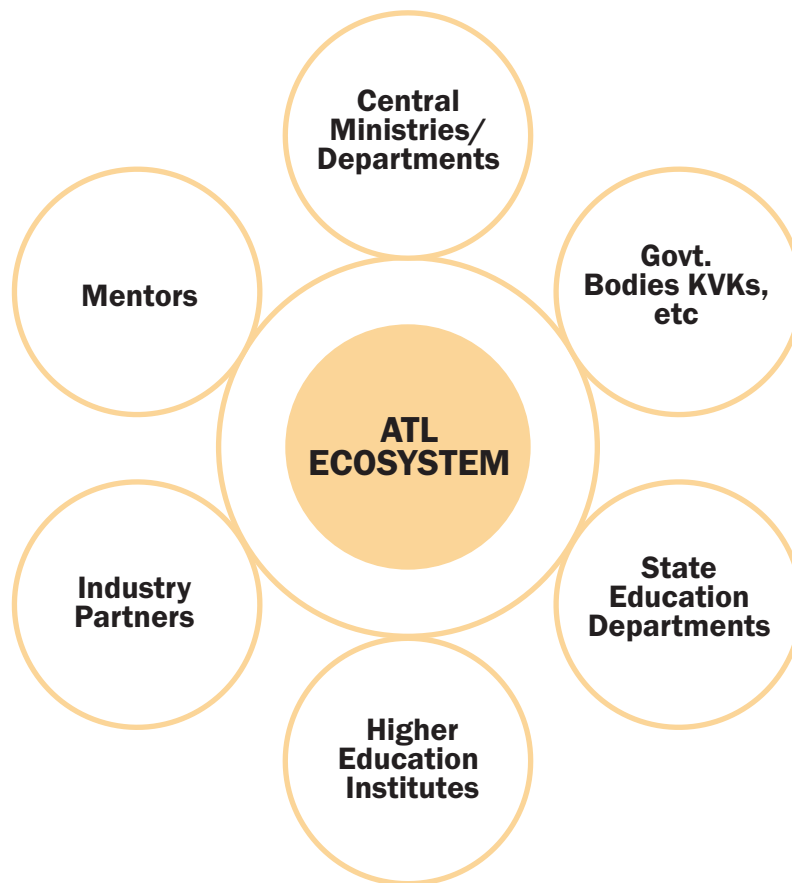
# **Chapter - 9**

## **ATL Ecosystem**



## 9. ATL Ecosystem

An effective and dynamic innovation ecosystem is essential to encouraging creativity and enabling collaboration within Atal Tinkering Labs (ATLs). The ATL ecosystem is built on meaningful collaboration between diverse stakeholders including- Central ministries/departments, State education departments, industry partners, higher education institutes, and mentors. These stakeholders bring technical expertise, domain knowledge, and resources to support the effective implementation of ATLs. Through structured partnerships, hands-on mentorship, and cross-sectoral collaborations, AIM creates opportunities for ATL schools to become centres of innovation



### 9.1. Engaging States

#### 9.1.1. State & District Nodal Officers

The ATL initiative exemplifies the spirit of cooperative federalism by fostering collaboration between the central government and states. To ensure the effective implementation of ATL initiatives, State Nodal Officers (SNOs) and District Nodal Officers (DNOs) for school innovation initiatives have been nominated across all States/UTs. These officers play a pivotal role in driving operational excellence, enhancing monitoring and evaluation mechanisms in ATLs. Additional responsibilities towards ATL initiative include- saturating compliance parameters, organising district and state-level hackathons, and ensuring uniform access to resources and opportunities.

To build capacity among state officials, a comprehensive two-day orientation program for SNOs was conducted in New Delhi, in collaboration with Ministry of Education and AICTE. Following this, a combination of offline and virtual orientation sessions for DNOs were conducted, equipping them with the necessary knowledge and tools to support ATL initiatives effectively. To further operationalize this framework, an engagement plan has been provided to SNOs and DNOs to actively monitor and support ATLs through regular visits, capacity-building initiatives for ATL in-charges, and adopting a cluster-based approach under ATL Sarthi.



### 9.1.2 State Level Hackathons

AIM has been at the forefront of organising hackathons, creating environments where students can transform their ideas into impactful solutions. To create a more vibrant innovation ecosystem at state level, AIM collaborates with State education department and other institutions in the state (including ATL schools) to organize state-level hackathons. These hackathons underscore the importance of aligning innovation with local needs, allowing students to create solutions that directly benefit their communities.

Two examples of state-level hackathons are- Tinkerathon in Chhattisgarh and InnovaTN in Tamil Nadu.

#### Case Study 1 – Tamil Nadu State Hackathon - InnovaTN

InnovaTN, the Tamil Nadu State Hackathon held in Erode, brought together 517 teams from over 35 districts across Tamil Nadu and Puducherry. The grand finale, saw 124 teams present their solutions to themes based on United Nations Sustainable Development Goals (UNSDG). Professors from various higher educational institutes, CEOs of Atal Incubation Centers participated as jury members for the competition. While the top three teams were awarded a cash prize of ₹50,000 each, the real prize for all participants was the opportunity to embark on a transformative journey of learning and growth. The top 20 teams from InnovaTN 2024 have been selected to participate in the Student Innovator Program (SIP).







### Case Study 2 – Chhattisgarh State Hackathon - Tinkerathon

Tinkerathon 2024, organized with the support from the Bilaspur District Government, Smart City, and Samagra Shiksha Chhattisgarh, was a celebration of creativity and collaboration. The event brought together over 216 student teams from 158 schools across 32 districts, showcasing the immense potential of youth-driven innovation. With themes ranging from Space Technology, Urban and Rural Development, Healthcare, Agriculture, to the Digital Economy, the students developed projects aimed at solving real-world problems, reflecting their deep engagement with both local and global challenges. The presence of dignitaries such as Hon'ble Cabinet Minister of State, Housing & Urban Affairs, MLA, Collector, and Nagar Nigam Commissioner of the region elevated the event, underscoring the importance of nurturing young talent. A key highlight of the event was the ATL Talks, similar to TED Talks, where thought leaders shared insights on Innovation and Entrepreneurship, sparking inspiration and ideas for the future. Two editions of this State Hackathon has been organized till now.

## 9.2. ATL Partnerships

Partners play a pivotal role in fortifying the ATL ecosystem by providing resources, expertise, and opportunities for innovation. Through collaboration with Atal Innovation Mission (AIM), corporate, academic, and non-governmental entities contribute to creating a vibrant and inclusive environment for nurturing creativity and entrepreneurship among students.

### 9.2.1 ATL Adoption

Corporate partners play a pivotal role in the adoption and enhancement of ATLs especially those in tier 2/3 cities and government schools. Partners are expected to assign Resource-Person/trainers who work closely with ATL In-Charges to manage lab activities and ensure the program's success. Partners are responsible for facilitating teacher training programs, student workshops, exhibitions and boot camps to engage their adopted ATLs. They are also expected to facilitate visits to their own innovation labs, manufacturing facilities, and Research & Development facilities. Where feasible, partners can enhance student learning experiences through internships at their innovation centers. This comprehensive engagement helps create a thriving innovation ecosystem within adopted schools.

#### **Case Study: Adoption of ATLs by Dell Technologies and Learning Links Foundation**

Dell Technologies, in partnership with the Learning Links Foundation and Atal Innovation Mission (AIM), has been instrumental in enhancing the ATL ecosystem. Through a structured adoption program, this collaboration has supported over 300 ATLs by hand-holding them and providing a dedicated Resource-Person for training the teachers and students. Another initiative is the ShePreneur program, a girl-innovator focused initiative which supports top girl teams of the ATL Marathon, to undergo the dedicated Student Internship Program (SIP).

### 9.2.2 Capacity Building

Partners enhance the capacity of ATL in-charges, teachers, and students by providing support in developing learning modules on innovation and 21st century skills. Partners also conduct offline and virtual training programs for ATL teachers on the Unbox Tinkering training module, and other emerging technologies. They also conduct training sessions and workshops for ATL students focussing on topics such as design thinking, robotics, computational skills, and coding.

#### **Case Study: IBM's Capacity Building for ATL Teachers through Unbox Tinkering Training**

IBM in collaboration with LLF and AIM facilitated the capacity building of teachers on the Unbox Tinkering training program which was designed to equip teachers with essential STEM and tinkering skills, enabling them to confidently engage with tools and technologies to foster innovation. The program reached over 13,000 teachers, alongside training thousands of students directly. Teachers were empowered through hands-on workshops, enabling them to integrate tinkering concepts into their curricula and create project-based learning experiences. The program's impact was transformative, teachers reported a significant boost in confidence, with many successfully organizing STEM activities and mentoring students to participate in innovation competitions.

### 9.2.3 Mentorship and Community Engagement

Partners provide a continuous pool of volunteers to act as mentors for ATL students, guiding them through innovation processes and fostering problem-solving skills. They organize community outreach events, including tinkering workshops and innovation exhibitions, which promote inclusivity and local engagement.

### 9.2.4 Innovation Programs and Competitions

Partners collaborate with AIM to host innovation challenges, hackathons, and marathons, providing a platform to students to showcase their ideas. They support students with mentorship, prototyping resources, and exposure to industry practices, including industrial visits and internships.

### 9.2.5 Recognition and Outreach

To amplify the impact of ATLs, partners facilitate social media campaigns, recognize outstanding projects, and promote ATL activities through mainstream and digital media. This creates broader awareness and motivates greater participation in the tinkering movement.

By engaging with partners, the ATL ecosystem leverages expertise, resources, and networks, significantly enhancing the quality and inclusivity of innovation education in India. These collaborations are instrumental in preparing a future-ready workforce and fostering a culture of innovation nationwide.

## 9.3 Collaborations with other Government Institutions

### 9.3.1 Collaboration with Higher Education Institutions through IICs

Atal Innovation Mission (AIM) has collaborated with All India Council for Technical Education (AICTE), through the Ministry of Education's Innovation Cell, to enhance innovation skills among school students and create stronger connections between schools and higher educational institutions (HEIs). This partnership links Atal Tinkering Labs (ATLs) in schools with Institution's Innovation Councils (IICs) in HEIs across the country to foster an integrated innovation ecosystem. ATLs provide school students with resources and opportunities to work on innovative projects, while IICs engage college students and faculty in innovation and entrepreneurship activities. Activities such as online mentoring, lectures, group projects, and stakeholder visits will further strengthen this connection.





### 9.3.2 Mapping ATLs with Krishi Vigyan Kendras (KVKs)

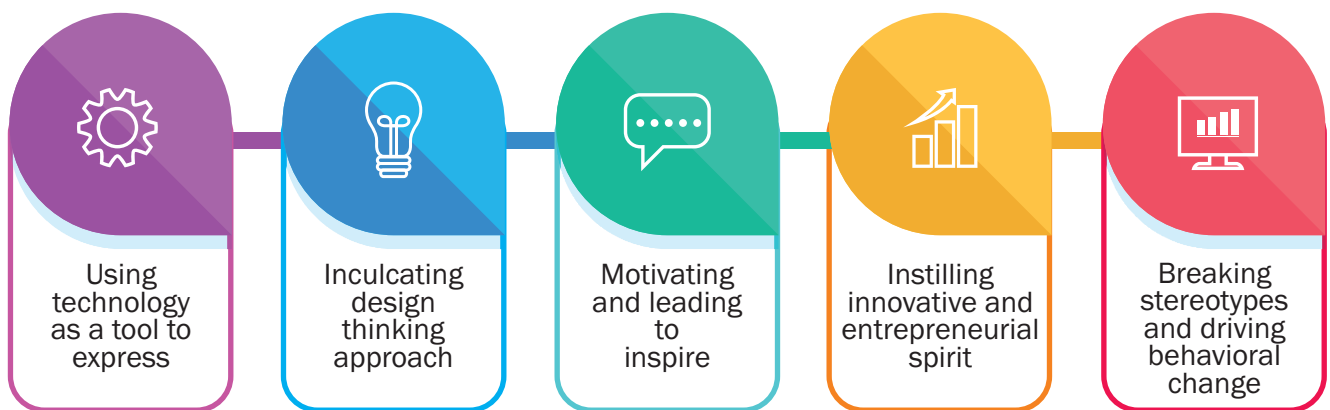
The Atal Innovation Mission (AIM), NITI Aayog, and the Ministry of Agriculture and Farmers Welfare (MoA&FW) have forged a dynamic collaboration to foster agricultural innovation among Indian school students through ATLs. This initiative connects ATLs with Krishi Vigyan Kendras (KVKs) and Agricultural Technology Management Agencies (ATMAs). This collaboration aims to seek solutions to the challenges faced by the farming sector through the creative ingenuity of student innovators. As a part of this initiative, Atal Tinkering Lab students also visit Krishi Vigyan Kendras in their nearby areas to get exposure to the latest technological advancements in the agricultural sector. The pilot phase witnessed the connection of 55 ATLs with 11 KVKs, demonstrating the potential for technology support and knowledge-sharing in addressing agricultural challenges through an integrated learning approach. As part of next phase, 275 KVKs have been linked with 1175 ATLs.



## 9.4 Mentor India

The Mentor India program is a voluntary national movement being led by AIM, wherein skilled professionals provide pro-bono mentoring to young ATL innovators, with a strong sentiment towards nation building. These skilled volunteers, who are called the ‘Mentors of Change’ spend time on-ground with ATL students to enable them to experience, learn and practice innovation and 21st century skills. There are currently 6200+ Mentors of Change.

### 9.4.1 Roles and Responsibilities of Mentors of Change



- 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. At least 1 mentoring report to be submitted every month
- III. Support at least 10 students teams to participate in innovation marathons, competitions, bootcamps, etc
- IV. Engage in events and sessions hosted by AIM and Regional Mentors of Change (RMOcs)
- V. Support the school in reaching out to communities in neighbouring areas and guide ATL In Charge(s) with the operational aspects of the lab





## 9.4.2 Key Components of Mentor of Change Program

### **Selection of Mentors:**

1. Online application submission of eligible candidates (Eligibility criteria Mentors of Change Eligibility Criteria)
2. Profile review and shortlisting
3. Selection and onboarding of Mentors
4. Orientation of mentors on ATL Program

### **Mentoring Process:**

5. Connecting the mentors to ATL Schools
6. Weekly mentoring sessions at ATLs with a commitment of 1-2 hours
7. Activities include guiding innovation projects, organizing workshops, and fostering collaboration with local communities
8. Monthly reporting of Mentoring Activities on Mentor India Portal Engaging Mentors
  - o Capacity building of mentors through Knowledge Hub sessions
  - o Competitions- ATL Tinkerpreneur, Marathon
  - o Mentor Task Forces for Content Development, Knowledge Hub Sessions, Sarthi and ATL competitions
  - o Quarterly virtual review meeting

### **Recognition:**

- o Recognition of top mentors as Regional Mentors of Change and Gems of Mentor India
- o Mentor Round Table for top Mentors share their mentoring journey and suggestions



Further details on Mentor India Program can be found here  
[https://aim.gov.in/pdf/Mentors\\_of\\_India\\_27\\_January\\_2019.pdf](https://aim.gov.in/pdf/Mentors_of_India_27_January_2019.pdf)



# **Chapter - 10**

## **Best Practices in ATLs**



## 10. Best Practices in ATLs

ATL Best Practices are some of the most innovative practices which schools have successfully implemented in their ATLs. These best practices will enable and empower more schools to successfully manage their ATLs.

### #1

#### Developing Student Mentors : TinkerChamps

Schools must develop ATL student-mentors by having an Innovation club at school level where students can take ownership of ATL activities. One such initiative is TinkerChamps Club, where 30+ students from different parts of India are providing important mentoring sessions, developing resources & organizing competitions & challenges for ATL school students.



### #2

#### Multiple ATL In-charge taking Ownership

The ATLs are encouraged to upskill multiple teachers of the school to take the ownership of operations and maintenance of ATLs. Many ATLs have adopted this practice to offload the work of ATL from only one teacher and subsequently develop 21st century skills in multiple teachers, providing a coherent atmosphere for students and teachers alike.

### #3

#### Involving Parents in ATL

Inviting Parents to ATL can best help sensitize them towards the role ATLs can play in honing the skills of students. ATLs can invite parents for an exhibition/demonstration of projects by students along with a dedicated ATL tour. For example, a school in Bangalore invites parents to visit their ATL on every parent-teacher meet and shows them the latest innovation projects created by the students in ATL. The Parents too, in turn take up various mentorship sessions for the ATL students.

#### #4

##### **Connect with Higher Educational Institution**

ATLs may get in touch with nearby Higher Educational Institutions to receive dedicated mentorships, workshops, lectures for 21st century skills and equipment. Many colleges & universities of India have their own Institute Innovation Councils (IICs) and Research divisions which can help schools in growing the mindset & competency of school students towards problem solving, design thinking, and research.

Many schools in Karnataka, Tamil Nadu, Chhattisgarh and Andhra Pradesh are getting regular technical support from the universities in their region. Many Colleges also offer special scholarships for admission of ATL students in their institution.

#### #5

##### **Exposure Tours for Students**

Schools must organize field trips and exposure tours for ATL students in the nearby industry or academic institutions to provide first-hand exposure on industry practices. Through this, students are able to connect themselves more with the community challenges, ignite their innovative spirit and develop solutions of the same.

Various field trips were organized for schools of Delhi, Bangalore to nearby factories, industries and institutes like CSIR and KVKs. These visits allow students to experience real-world applications of things learnt in the ATL, enhancing their understanding of modern technology. By observing state-of-the-art facilities, machinery, and processes, students gain insights into real-time operations and innovative problem-solving techniques, inspiring them to integrate these learnings into their projects at ATLs.









## 11. Sustainability of ATLS

Since its inception, the Atal Tinkering Lab (ATL) program has been instrumental in fostering a culture of innovation and scientific temper among students across India. Under the ATL scheme, grant-in-aid of up to Rs. 20,00,000/- (Rupees Twenty Lakhs Only) is provided to selected schools for setting up the ATL over a period of 5 years. Once the five-year funding period concludes, it becomes imperative to establish robust operational and financial processes to ensure the long-term sustainability of the program. The key measures necessary to sustain and enhance the ATLS beyond the funding phase are-

### 11.1 Operational Sustainability

Processes have been designed to ensure continuous operational improvements and to assist schools in maintaining compliance with established guidelines.

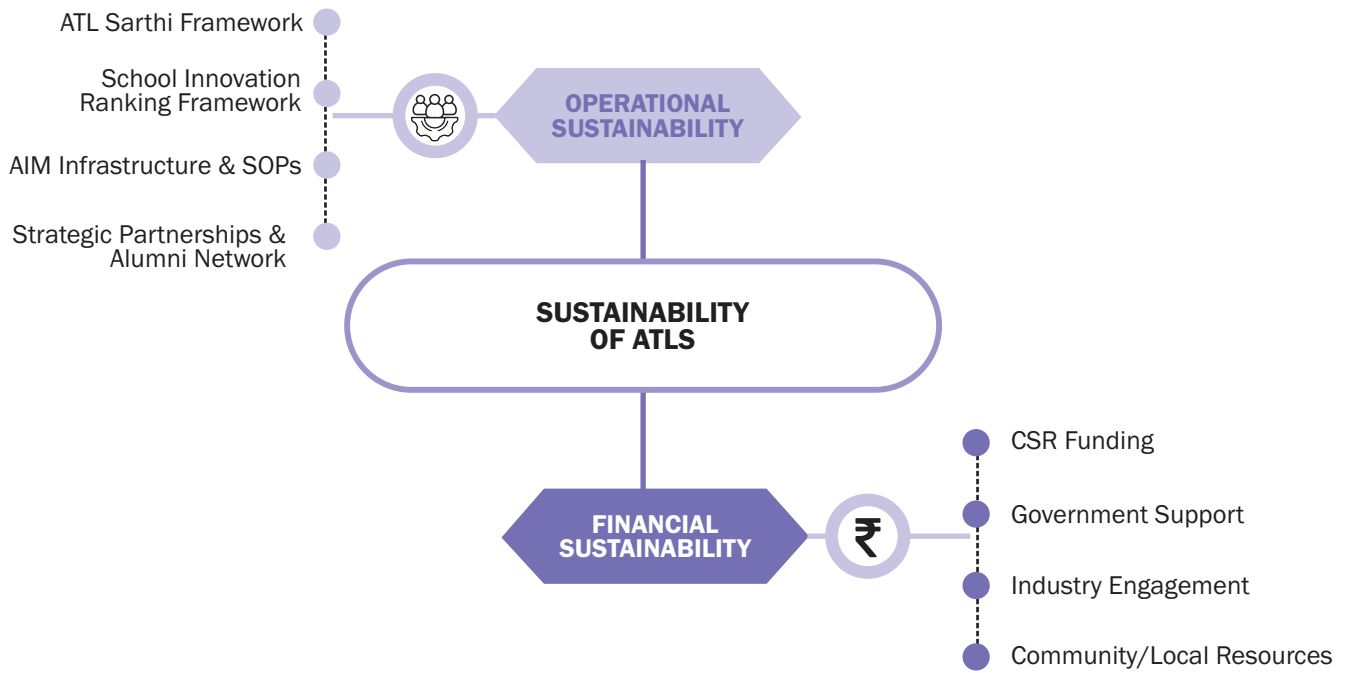
- i. The ATL Sarthi framework promotes a cluster-based management system by grouping 20–30 ATLS into regional clusters, enabling effective monitoring, evaluation, peer learning, and resource sharing among schools.
- ii. The School Innovation Ranking framework is a self-evaluation tool for ATLS that may be used to assess strengths and weaknesses across the twin pillars of Performance and Enablement (PE). This framework classifies ATLS into five outcome bands and provides tailored pathways for improvement.
- iii. Leverage the support structures that are currently made available by AIM for ATLS such as IT systems, query portals, network of mentors under Mentor India program, self-assessment, monitoring frameworks and platforms like School Innovation Marathon.
- iv. Schools may adhere to Standard Operating Procedures (SOPs) established for ATLS and participate in on-ground assessments conducted by local authorities.
- v. Collaborations with higher education institutions, Krishi Vigyan Kendras, and Innovation Councils can facilitate mentorship and knowledge-sharing, while a robust alumni network may be established to mentor students and provide industry exposure.

### 11.2 Financial Sustainability

Financial sustainability for Atal Tinkering Labs (ATLS) can be achieved through strategic partnerships and resource mobilization.

- i. Schools-both government and private-may seek Corporate Social Responsibility (CSR) funding from private and public organizations to support the ongoing operations of their labs. By crafting persuasive proposals that emphasize the societal impact of ATLS, additional funding opportunities for the labs ongoing operations can be ensured.
- ii. Government schools may be supported by including ATLS in existing schemes such as Samagra Shiksha for covering maintenance and operational costs, while also utilizing state and district-level resources to support ATL activities and infrastructure development.
- iii. Industry Engagement- Engaging with local industries may facilitate financial and technical support for the ATLS. Schools may partner with industries to co-develop projects, host innovation challenges, and sponsor ATL events. Additionally, industries can contribute to equipment, mentorship, or training sessions to strengthen the lab ecosystem.
- iv. Community/Local Resources- Leveraging locally available resources—such as district-level training centers, innovation hubs, or nearby educational institutions—can enhance the efficiency of ATLS and can potentially provide financial support. Community participation, including support from alumni, and technical experts, can ensure cost-effective solutions and encourage localized problem-solving.

By integrating operational frameworks like ATL Sarthi with diverse financial support mechanisms, ATLS can cultivate continued innovation and creativity, ensuring long-term sustainability. This cohesive sustainability model, supported by collaboration between schools, government bodies, private sector partners, and community, will enable ATLS to serve as an enduring catalyst for innovation and entrepreneurship.









## 12. Conclusion

The ATL program has brought about a paradigm shift in the way learning takes place in the schools. ATLs have been successful in creating a scientific temper and cultivating the spirit of curiosity and innovation among young minds.

Over the past eight years, AIM has developed a holistic ATL framework built upon six foundational pillars: Select, which focuses on the screening and selection of schools; Establish, which covers ATL setup, lab management and operations; Enable, which includes the capacity building, curriculum, engagement and competitions; Celebrate, which emphasizes recognition and showcasing innovation; Evaluate, which includes performance monitoring and measuring impact, and Evolve encompasses policy experiments, curriculum integration, novel tinkering templates, career pathways, and internationalization.

The ATL program design and implementation follows a plug and play approach and includes guidelines, curriculum, training tools, standard operating procedures (SOP) and is supported by IT systems and several partnerships. It enables the creation of a culture of innovation and a vibrant collaborative ecosystem within the school community, through celebration and recognition of innovative students, teachers, mentors, parents and other stakeholders.

Going forward, AIM envisions a two-pronged focus for the ATL program, one ensuring Saturation of ATLs across the country and the other ensuring continuous Innovation. Saturation will entail increasing the number of ATLs to provide universal access to innovation and entrepreneurship education for school children. AIM proposes a model where one in three schools in the vicinity may have an ATL shared between the three schools. Innovation will ensure that ATLs keep pace with the technological developments and evolving educational landscapes and innovation ecosystem. The focus will be on experimenting and conducting pilots to identify and implement progressive policies and templates that catalyse the growth of ATLs, through strategic collaborations with educational experts, policymakers, and other stakeholders.

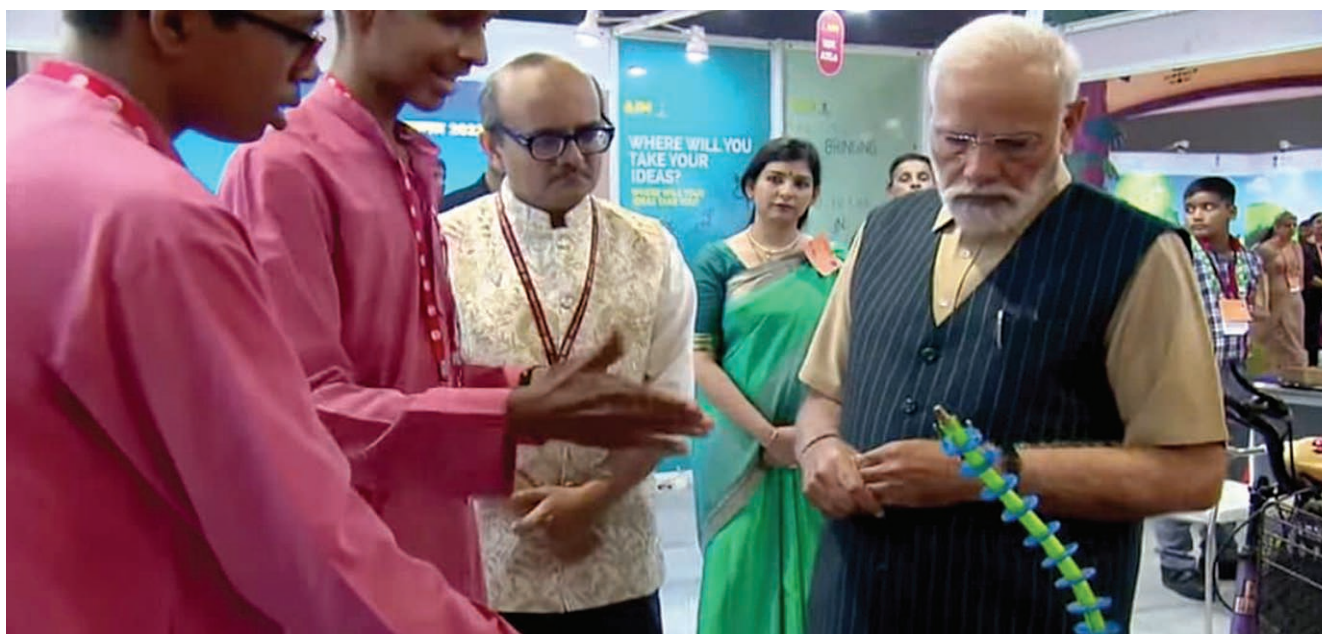
As we move to the next phase with renewed focus, the objectives of the ATL program will be to:

- **Sustain the Spirit of Curiosity:** Foster a continuous sense of curiosity and exploration in every student, ensuring that the innate desire to inquire and discover remains alive in academic journey.
- **Cultivate a "Producer" Mind-set:** Instil the mind-set of a creator and producer early in students, transforming them to active contributors to knowledge and innovation.
- **Evolve from Labs to Comprehensive Tinkering:** Shift the focus from laboratory setups to a holistic approach of tinkering, encouraging students to engage in hands-on, experiential learning.
- **Emphasize Idea Generation and Development:** A more dynamic model that centres around ideation, implementation, learning from failures, reflection, and iterative rebuilding.
- **Diversify Learning Techniques:** Broaden the learning spectrum to embracing a variety of frugal to high-tech tinkering methodologies, encouraging a more inclusive and adaptive educational approach.
- **Align with National Policies:** Leveraging the ATL ecosystem to implement the 'Experiential and Project-Based Learning' model across India, which align seamlessly with the National Education Policy (NEP 2020).
- **Expand ATL Reach Nationwide:** Saturate the ATL program and ensuring universal access to innovation and entrepreneurship education for school children (1 in 3 schools).
- **Focus on Frontier Regions:** Give special attention to underserved regions such as Jammu & Kashmir, Ladakh, North-eastern states, and Aspirational Districts/Blocks, aiming to build tailored templates of tinkering labs to promote inclusive innovation and skill development.

Looking ahead, the Ministry of Education and State Education Departments will play a pivotal role in the expansion and sustainability of the Atal Tinkering Lab (ATL) program. AIM will work closely with these institutions by involving and driving key initiatives across the ATL program framework through them. The ultimate objective is to mainstream tinkering within the school curriculum, particularly in state board schools, to ensure its long-term integration.

The National Educational Policy 2020 has given us ambitious goals to transform our education sector. The Atal Tinkering Lab initiative is making a tangible impact at the grassroots level across the country, empowering students and teachers to transform into innovators and develop an entrepreneurial mindset.

AIM, NITI Aayog and the Government of India will continue to work with dedication to further evolve the ATL template and enable access to tinkering and latest technologies to every child in India, actualizing a vision for 'Viksit Bharat', a developed India!





# Essential Resources



## 13. Essential Resources

### ATL Establishment

Schools are expected to set up your ATL within 3 months from the date of receipt of ATL grant. We have created a set of ATL guidelines and ATL informational videos, that will help you in the ATL establishment process



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

### ATL Guidelines

All ATLs must follow the ATL Guidelines without fail. It is mandatory for the schools to use GeM, PFMS and MyATL dashboard for procurement, financial and operational updates respectively.



<https://aim.gov.in/atl-guidelines-and-information.php>

### ATL Teacher Training

It is mandatory for an ATL in-charge to undergo teacher training sessions (online and offline) conducted by AIM, NITI Aayog and its partners.



Online Teacher Training -  
<https://aim.myp2e.org/>



Activity Hand book -  
[https://aim.gov.in/pdf/TT\\_Activity\\_Book\\_05102021.pdf](https://aim.gov.in/pdf/TT_Activity_Book_05102021.pdf)



### ATL Curriculum

The ATL in-charge must integrate the ATL curriculum in the regular school time table.



<https://aim.gov.in/atl-tinkering-cirriculum.php>

### ATL Equipment Manual

This comprehensive guide provides students and educators with all the information they need to harness the latest tools and technologies in ATLS



<https://aim.gov.in/pdf/equipment-manual-pdf.pdf>

### AIoTT Integration in Curriculum

The compendium is a collection of lesson plans on how AIoT integration can be used to enhance learning in a classroom



<https://aim.gov.in/images/AIoT-Integration-Manual.pdf>

### MyATL Dashboard

It is mandatory for every school to update their monthly ATL activities and submit them on the MyATL Dashboard



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

## Update ATL Contact Details

To update the contact details of the ATL schools in AIM Database, kindly update the details using the following link



ATL Contact Details

<https://docs.google.com/forms/d/e/1FAIpQLSc7ejnIH0TcUrSy6nxzXV00GrP3qQXvQPbNx6TVDQUH9xyWhw/viewform>

## ATL Mentor of Change

Each ATL shall be assigned a Mentor of Change (MoC), through AIM, NITI Aayog. The details for the mentors shall be shared on the registered email address of the ATL School in-charge. The MoCs and ATL school are expected to coordinate for the Mentoring sessions for the ATL.

Subsequent Tranches of ATL Grant-in-aid & a Utilization Certificate

Every ATL will be required to submit a Utilization Certificate every year. The release of subsequent funds shall be a function of the performance of an ATL.



Grant in Aid Utilization Guidelines

<https://aim.gov.in/pdf/ATL-Tranche-Restructuring-Order-and-Guidelines-260822.pdf>

## ATL Query Resolution System

In case of any queries, school may write to us through the ATL Query Portal.



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

## ATL Sarthi

ATL Sarthi provides tools and support to schools to adopt a self-monitoring approach for better and continuous performance.



[https://aim.gov.in/images/ATL\\_Sarthi\\_Brochure.pdf](https://aim.gov.in/images/ATL_Sarthi_Brochure.pdf)









ATAL INNOVATION MISSION TEAM





सत्यमेव जयते

**NITI Aayog**



**ATAL INNOVATION MISSION**