सूचना एवं
प्रसारण मंत्रालय
MINISTRY OF
INFORMATION AND
BROADCASTING

सत्यमेव जयते

Realising AVGC-XR Sector Potential in India

Report by **AVGC Promotion Task Force**

2022

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"AVCG-XR sector can provide immense employment opportunities to the youth who can serve the global market and the Indian talent can lead the way in this sector."

SHRI NARENDRA MODI

Hon'ble Prime Minister of India


POCKET MONSTERS

Foreword

SHRI. ANURAG SINGH THAKUR

Hon'ble Union Minister of Information & Broadcasting

The Media and Entertainment ecosystem is a sunrise sector in India and is well on its way to lead the industry globally.

The AVGC sector shall serve as a major growth driver for the Media and Entertainment sector in India and for the realization of the same, the Government of India has designated audio-visual services as one of the 12 Champion Service Sectors and announced key policy measures aimed at nurturing sustained growth.

The ministry has taken up a multi-pronged approach to lay a solid digital foundation for the AVGC sector in the country and had setup the AVGC Task Force under the chairmanship of Secretary, Ministry of Information & Broadcasting to help develop policies and strategies to establish India as a world leader in the AVGC sector.

We believe that it is imperative for academia and industry to come together and work towards the growth of AVGC sector in India. Further, the sector shall create quality employment opportunities for the youth as we eventually move towards a digital era of quality content creation.

Taking this aim and the efforts undertaken so far, forward, the AVGC Task Force has developed a comprehensive report of the recommendations on the AVGC sector.

I am pleased to present the vision of both, the government, and the industry for developing a roadmap of growth and hope this report will service as a guiding document for stakeholders who are a part of the AVGC ecosystem.

Foreword

DR. L. MURUGAN

Hon'ble Minister of State, Information and Broadcasting

The Media and Entertainment ecosystem being a sunrise sector in India plays an important role in the economy of our country, both in terms of creating employment opportunities and contribution to GDP.

The AVGC sector in India has made great strides to achieve new heights, and with the right regulations and initiatives, it has the potential to support the whole media and entertainment sector.

With the appropriate set of actions, the Indian AVGC sector has a unique opportunity to develop at a global scale. The dynamic nature of the AVGC sector has led to the realization that there is a need to implement focused and targeted interventions in the sector.

In view of this, the Ministry of Information and Broadcasting is releasing an AVGC Task Force report, after conducting several inter-ministerial and industry consultations to ensure this report gets a holistic viewpoint. The report was created keeping in mind the current state of the sector and includes suggestions from various government bodies both at center and state and from industry stalwarts.

I am hopeful this report shall help all stakeholders both Government and Industry to explore heterogenous view of the AVGC industry for the overall development.

Foreword

SHRI. APURVA CHANDRA

Secretary, Ministry of Information and Broadcasting

With the momentum that the AVGC industry has gained in the current times, it has become imperative to develop a support ecosystem for the industry at large, to facilitate its growth

To boost our domestic capacity and develop the opportunity landscape, we must explore collaborations in academia, co-production, technology, policy & research and leverage the existing industry expertise to guide the sector. With this motive, the industry and government have come together to deliberate and suggest action areas for the AVGC industry, under the aegis of the Task Force

The Government has taken significant steps in boosting the AVGC industry in India and is guiding the industry constantly by robust policies and interventions. The AVGC sector has the capability to become the backbone of Media & Entertainment industry. Ministry of Information & Broadcasting had established a Task Force on the AVGC sector in April 2022 as announced in the Budget speech of 2022-2023

We are now releasing the AVGC Promotion Task Force report that has been developed keeping in mind the as-is scenario of the industry and encompasses recommendations from various Government Bodies and industry.

The Ministry of Information and Broadcasting has held extensive consultations with Industry representatives from the Animation, Extended Reality, Visual effects, Gaming and Comics industry, to ensure this report gets a holistic viewpoint.

I am hopeful this report shall help all stakeholders explore multiple facets of the AVGC industry.

Foreword

SMT. NEERJA SEKHAR

Additional Secretary, Ministry of Information & Broadcasting

The Media and Entertainment industry has an important role to play in the economy of our country, both in terms of creating employment opportunities and contribution to GDP.

The Indian AVGC sector, with the right set of interventions has a unique opportunity to grow and establish itself at the global level. Hence, we, at the ministry are making concerted efforts to bring the industry and government stakeholders together, in the form of an AVGC task force.

We believe that the industry stakeholders can gauge the existing opportunities in the sector which can help us devise targeted strategies and policies of growth. Our task force has representation from central and state governments, industry stalwarts from A-V-G-C and sectoral experts who have guided us at each step of consultation.

While making the recommendations for this report, The Task Force has carried out several inter-ministerial consultations, acknowledging that the growth of this sector will be a result of extensive collaboration amongst different Government bodies. Inputs have also been taken from lighthouse states of AVGC sector, Karnataka, Maharashtra and Telangana.

With this effort, we have developed a comprehensive AVGC Promotion Task Force report comprising sector specific recommendations which shall cater to a diverse set of stakeholders.

I am hopeful that this collaborative effort undertaken in the form of a report shall lead to the overall development of the Indian AVGC sector.

Foreword

SHRI. PRITHUL KUMAR

Joint Secretary (Films), Ministry of Information & Broadcasting

The AVGC-XR sector in India has been categorized as a sunrise sector due to the unprecedented growth it has witnessed in recent years. The sector holds a unique growth opportunity for India in terms of its enormous domestic export potential, creation of quality job opportunities, along with taking Indian art & culture to the world. India has the opportunity to become a global leader in the sector.

There is a need to implement focused and targeted interventions with an aim to provide an overall impetus to the sector and establish it as one of the key drivers of the nation's economic growth. The growing digital penetration with availability of smartphones & launch of 5G services in the country the sector needs to be focused by Indian for accelerating the economic development in the country

Keeping this vision given by Hon'ble PM in mind, the Task Force & its Sub Task Force undertook an in-depth analysis of the Animation, VFX, Comics and Gaming sectors and formulated specific recommendations for the growth of the sector, after extensive consultations between the Government, Industry and Academia.

I am pleased to present the AVGC Promotion Task Force Report which encompasses the vision of both, the government and the industry, with a view that this report will serve as a guiding document for the whole of the AVGC ecosystem.

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Glossary of Terms

2D	2 Dimensional
3D	3 Dimensional
5G	5th Generation mobile network
ABC	Academic Bank of Credits
AICTE	All India Council for Technical Education
APAC	Asia Pacific
AR	Augmented Reality
ARPU	Average Revenue Per User
AVGC	Animation, Visual Effects, Gaming & Comics
B2B	Business to Business
BCAS	Bachelor of Creative Arts & Sciences
BGMI	Battlegrounds Mobile India
Bn	Billion
CAGR	Compound Annual Growth Rate
CAS	Creative Arts & Sciences
CBSE	Central Board of Secondary Education
CIIE	Centre for Innovation, Incubation and Entrepreneurship
COE	Centre of Excellence
CSR	Corporate Social Responsibility
DOTA	Defence of the Ancients
DSC	District Skill Committee
EA	Electronic Arts
EdTech	Education Technology
E-Sports	Electronic Sports
EY	End of Year
FAU-G	Fearless and United Guards
FDI	Foreign Direct Investment
FICCI	Federation of Indian Chambers of Commerce and Industry
FIFA	International Federation of Association Football
FY	Financial Year
GB	GigaByte
GDP	Gross Domestic Product
GoI	Government of India
GoM	Group of Ministers
GST	Goods & Services Tax
HEI	Higher Education Institutes
IAMAI	Internet and Mobile Association of India

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Glossary of Terms

ICT	Information and Communication Technology
IEC	Importer Exporter Code
IIM	Indian Institute of Management
IISc	Indian Institute of Science
IIT	Indian Institute of Technology
INR	Indian Rupee
IP	Intellectual Property
IPLA	Intellectual Property Licensing Agreements
IPR	Intellectual Property Rights
IT	Information Technology
ITES	Information Technology Enabled Services
ITI	Industrial Training Institutes
JSS	Jan Shiksha Sanathan
KG	Kindergarten
LED	Light Emitting Diode
M&E	Media & Entertainment
MECAT	Media & Entertainment Creative Aptitude Test
MeitY	Ministry of Electronics and Information Technology
MESC	Media and Entertainment Skill Council
MHRD	Ministry of Human Resource Development
MMORPG	Massively Multiplayer Online Role-Playing Games
MOBA	Multiplayer Online Battle Arena
MOC	Memorandum of Cooperation
MoE	Ministry of Education
MOIB	Ministry of Information & Broadcasting
MOOCs	Massive Open Online Courses
MORD	Ministry of Rural Development
MoU	Memorandum of Understanding
MPL	Mobile Premier League
MSDE	Ministry of Skill Development and Entrepreneurship
MSH	MeitY Start-up Hub
MSME	Micro, Small and Medium Enterprises
NCERT	National Council of Educational Research and Training
NCOE	National Centre of Excellence
NCVET	National Council of Vocational Training and Education
NEP	National Education Policy

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Glossary of Terms

NFDC	National Film Development Corporation
NID	National Institute of Design
NIFT	National Institute of Fashion Technology
NOS	National Occupational Standards
NSDC	National Skill Development Corporation
NSQF	National Skills Qualifications Framework
OTT	Over-the-Top
PC	Personal Computer
PG	Postgraduate
PMKK	Pradhan Mantri Kaushal Kendra
PMKVY	Pradhan Mantri Kaushal Vikas Yojana
PM-STIAC	Prime Minister's Science, Technology and Innovation Advisory Council
PPP	Purchasing Power Parity
R&D	Research & Development
RCoE	Regional Centre of Excellence
RMG	Real Money Games
RSG	Regional Schools for Gaming
SIPP	Start-Ups Intellectual Property Protection
SME	Small-to-Medium Enterprises
SSC	Sector Skill Councils
SSD	Society for Skill Development
STPI	Software Technology Parks of India
TIDE	Technology Incubation and Development of Entrepreneurs
TITP	Technical Intern Training Program
ToRs	Terms of Reference
ToTs	Training of Trainers
UG	Undergraduate
UGC	University Grants Commission
UPI	Unified Payments Interface
USD	United States Dollar
VC	Venture Capital
VFX	Visual Effects
VR	Visual Reality
XR	Extended Reality
YoY	Year-on-Year

Introduction

India is one of the oldest civilizations in the world with a diverse and rich cultural heritage. The cultural fabric of India is an amalgamation of a variety of languages, religions, literature, art and dance forms, music, food, architecture, and customs that together define the rich heritage of the country. The conventions, practices, and beliefs that are followed today were developed thousands of years ago.

For a country as diverse as India, the plurality of its culture is an essential component of the nation's growth story. India occupies one of the top spots globally with regard to collections of music, dance, theatre, folk traditions, performing arts, rituals, paintings, and writings- also known as the 'Intangible Cultural Heritage' of humanity.

Indian paintings, like other forms of art, have a rich history. The exquisite murals of Ajanta and Ellora Caves, Buddhist palm leaf manuscripts, miniature paintings, among others, stand as a testimony to the cultural history associated with Indian paintings.

Madhubani art, one of the earliest forms of Indian paintings, traditionally created by women of various communities in the Mithila Region of Indian subcontinent, has now become a globalised art form. . Similarly, Warli painting, an integral part of rituals of the Warli tribe, is now internationally recognized and appreciated. Exposure to the global landscape and emergence of a new generation of Warli painters has led to incorporation of contemporary elements of urban culture into these paintings.

In the same vein, the rich tradition associated with Thanjavur paintings has ensured that the art form continues to inspire artists all over the world.

Besides art forms, one of the significant ways in which culture and creativity manifest themselves is literature. Literary tradition dominates a major part of Indian culture. The Vedas, the Ramayana, and the Mahabharata are some of the oldest works of literature in India. The Brahmanas and the Upanishads were among the prose commentaries added to the Vedas. Sanskrit literature creation reached its peak of development in the 1st to 7th centuries CE. The period also witnessed the emergence of sacred and philosophical writings, court poetry, plays and narrative folklores. One of the noteworthy collections of Indian traditional stories include the Panchatantra, a collection of traditional narratives, dated to about second century BC. India's rich literary tradition has therefore captured the imagination of the world and resulted in the country's possession of almost 5 million manuscripts, envisaged to be among the largest collections globally.

Taking Indian culture abroad

The diversity of India's culture and the global attention received by its art forms, ancient literature, and folklores, have played a crucial role in strengthening the country's soft power. India is considered a melting pot of religions, languages, and cultures. Therefore, various initiatives have been taken by the government to disseminate and promote Indian culture across the world.

These initiatives include signing of bilateral and multilateral agreements, implementation of Cultural Exchange Programmes, promotion of Indian culture through 'Festivals of India' in foreign countries, providing assistance to Indo-Foreign Friendship Cultural Societies for cultural activities, among others.

There is a need to further showcase India's rich culture and history and leverage the potential of Media and Entertainment ecosystem for the same purpose. The role of AVGC sector deserves a special mention in this context. **The AVGC sector shall serve as a major growth driver for the M&E industry in India and for the realization of the same, the Government of India has designated audio-visual services as one of the 12 Champion Service Sectors**. Further, the growth of India's AVGC sector will enable it to act a connecting bridge between the country's culture and its dissemination to a wider global audience.

In the above context, it is essential to note the various ways in which AVGC sector could play a role in showcasing India's culture and heritage on a national as well as global scale. Similarly, there is a need to explore other innovative ways through which the integration of AVGC with India's culture could be strengthened and made more robust. Indian epics such as the Ramayana and Mahabharata could be used as inspiration to develop online and video games, which could eventually contribute to India's growth as an AVGC hub. Indian epics such as the Ramayana and Mahabharata could be used as inspiration to develop online and video games, which could eventually contribute to India's growth as an AVGC hub. Successful films may be transformed into strategy games through a dedicated mechanism of cooperation between the entertainment and gaming industry.

A similar approach could be adopted with respect to historical and folklore-based narratives, taking into consideration the cultural sensitiveness associated with the content and historical characters.

The role played by Amar Chitra Katha in preserving Indian heritage and promoting iconic folktales through its comic books, could to in this regard. These initiatives, along with several others, would prove to be instrumental in ensuring that content pertaining to India's rich culture and heritage reaches a wider audience across geographies.

Challenges in the AVGC sector in India

In light of the above, it is essential to note that although the potential and reach of AVGC sector in India is significant, the industry is still in its nascent stage and needs to overcome certain challenges. For instance, AVGC education is a building block of the sector. However, at present AVGC education in the country strongly needs standardization of content and delivery modes. For skilling and vocational training too, there is a need for dedicated vocational training modules for various other skills required by the sector. Further, to promote lifelong learning for AVGC professionals, adequate focus has to be given to the quality of skilling content. Apart from challenges on the academic front, the sector also needs to overcome challenges with respect to regulatory framework, infrastructure, financing, skilling, R&D and Intellectual Property. Addressing these challenges would enable the sector to realize its true potential and play an enhanced role in dissemination of Indian content on a global platform.

Driving growth in the AVGC sector

With increasing digitization, India is on course to become a leader in technological innovation and development. With the advent of digital technologies in general and the AVGC sector in particular, & a rapidly growing market, India's is taking strides to become a global AVGC hub. In this context, it is important to look at international best practices and consider the innovative work being undertaken by certain countries for growth of AVGC sector.

The animation and gaming industries employ technology extensively, and these can further demonstrate India's well-established credentials in the offshoring of technology and services, in addition to being essential for the growth of India's domestic M&E sector. The rise of new international trends such as the metaverse is also envisaged to add to the existing demand from the M&E sector, creating challenges with respect to skill development that need to be urgently addressed. AVGC sector can play a significant role in building metaverse. As per certain projections, the establishment of AVGC task force will help India achieve its potential of 20 lakh jobs in the sector, which is considered critical for development of skills required for the growth of metaverse.

Besides the advantages from the perspective of new-age technologies, growth of India's AVGC industry will not only enhance the export potential of the sector, but also facilitate the entry of foreign players in the country. Along with attractive financial incentives, a robust AVGC sector will attract relevant foreign companies and content creators to co-produce and relocate to India, outsource work to Indian counterparts, and provide employment to Indian content developers.

Formation of AVGC Promotion Task Force

Strengthening of India's AVGC sector requires a set of focused interventions, beyond just policy making. To realize real growth opportunity for India in terms of industry potential and job opportunities, in the Budget speech for the fiscal year 2022-2023, Hon'ble Finance Minister Smt. Nirmala Sitharaman announced the formation of an AVGC Promotion Task Force that would drive the institutional efforts to guide the policies of growth for this sector, establish standards for AVGC education in India, actively collaborate with industry and international AVGC institutes, and enhance the global positioning of the Indian AVGC industry.

Moreover, the larger idea behind the formation of the task force was to unleash the scope and reach of AVGC sector for it to become a torch bearer of "Create in India" and "Brand India".

To ensure overall growth of AVGC in India, an integrated approach needs to be adopted to cater to the overall need of the sector. To this end, the task force has given various actionable recommendations with respect to key enablers of the sector, such as market access and development, skilling and mentorships, education, increasing access to technology, creation of financial viability, promotion of high-quality content, and encouraging diversity, equity, and inclusion.

Implementation of these recommendations would further aid the growth of the M&E industry in general, and AVGC sector in particular, in the country.

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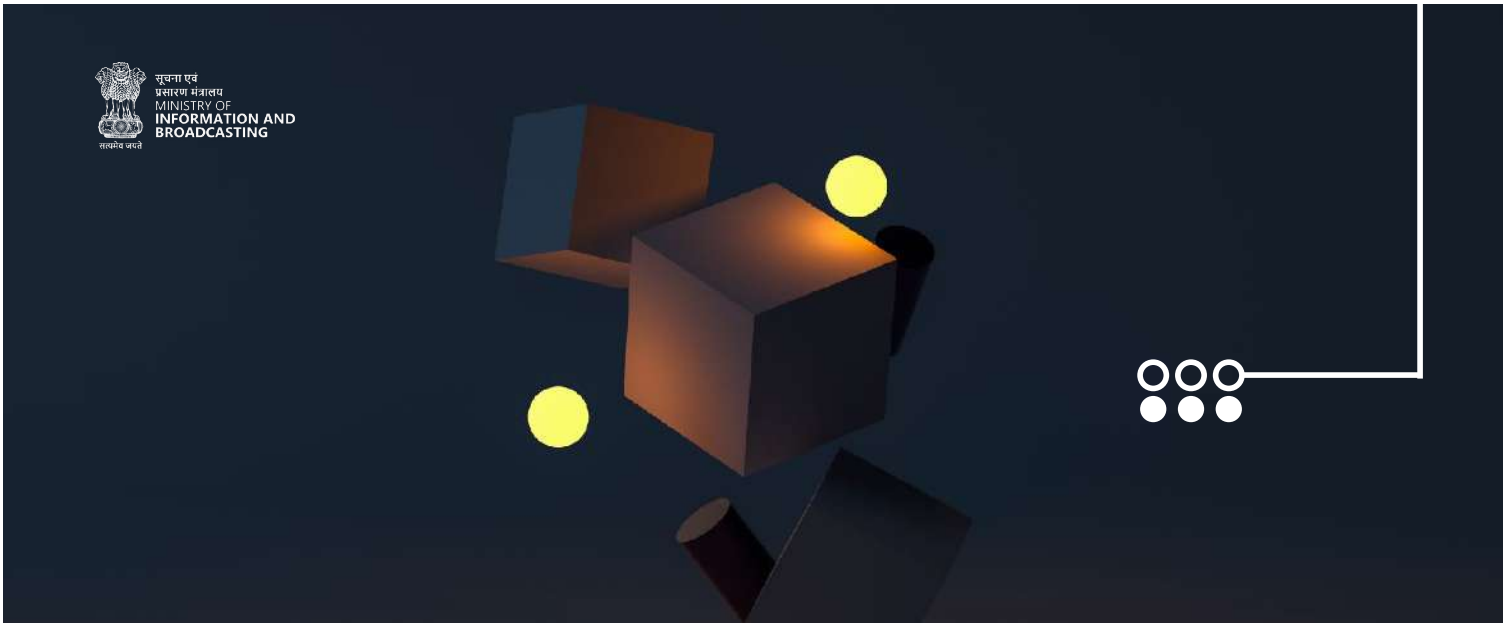
Chapter 1

AVGC Sector - A Global Context



1.1 Overview of Global AVGC Sector

The Indian Media and Entertainment sector is expected to grow at 8.8% CAGR to reach USD 53.75 billion in 2026. [1]

The government of India has designated audio-visual services as one of the 12 Champion Service Sectors and announced key policy measures aimed at nurturing sustained growth. [2]

The **global animation market** size was estimated at USD 372.44 billion in 2021 and is predicted to reach over USD 587.1 billion by 2030, growing at a CAGR of 5.2% during the forecast period 2022 to 2030. [3]

Global Visual Effects (VFX) market size was valued at USD 7.51 billion in 2021 and is projected to reach USD 11.26 billion by 2030, growing at a CAGR of 5.19% from 2022 to 2030. [4] One of the main factors leading to the development of the VFX market worldwide is the introduction of augmented reality (AR).

The increasing demand for digital content has created a need for innovation in visual effects for new experiences like AR.

The global gaming market was valued at USD 173.7 billion in 2020 and it is expected to reach USD 314.4 billion by 2026, growing at a CAGR of 9.64% between 2021 and 2026. [5] As per estimates for 2021, there are 2.7 billion gamers across the world with China, Japan, US, and UK combined representing 47% of all gamers globally and 64% of all direct consumer spend on gaming. [6] Estimates show that the global gaming market would reach a value of USD 339.95 billion by 2027, registering a CAGR of 8.94% over 2022-2027. [7] Asia-Pacific is anticipated to hold the largest market share in the gaming industry, with India, Japan, China, and South Korea showing high potential for market growth. [8]

The global Comic Book market size is projected to reach US$ 19.5 billion by 2028, from US$ 11.8 billion in 2021, at a CAGR of 7.1% during 2022-2028. [9]

The movie RRR had over 2800 VFX shots. All the animal scenes were synchronized using radio-controlled cars, programed to operate at specific speed.

[1] https://www.outlookindia.com/business
[2] https://pib.gov.in/FeaturesDeatils.aspx?NoteId=151133&ModuleId=2
[3] https://www.precedenceresearch.com/animation-market
[4] http://www.verifiedmarketresearch.com/product/visual-e%EF%AC%80ects-vfx-market/#%3A~%3Atext%3DVisual%20E%EF%AC%80ects%20(VFX)%20Market%20size%20was%20valued%20at
[5] As per NITI Aayog estimates
[6] https://www.accenture.com/_acnmedia/PDF-152/Accenture-Gaming-Article.pdf#zoom=40
[7] https://www.businesswire.com/news/home/20220706005573/en/Gaming---A-339-Billion-Industry-Assessment-2022-2027-Asia-Pacific-and-Smartphone-Gaming-are-the-Lucrative-Segments---ResearchAndMarkets.com
[8] https://www.mordorintelligence.com/industry-reports/global-gaming-market
[9] http://www.marketresearch.com/QYResearch-Group-v3531/Global-Comic-Book-Size-Status-30980921/

1.2 Global Trends driving growth in AVGC Sector

Figure 1:

Global growth drivers of AVGC Industry

Animation and VFX Sector

1. Growing OTT User base

- Over-the-Top user base is expected to grow at a CAGR of 7% between 2021 [10] and 2024 with a penetration of 45.8% in internet users. [11]
- Although growth has slowed, the scope for increased usership is still high, as less than 50% internet users worldwide are watching OTT. [12]
- The new animation content is not just restricted to kids but is also finding its niche with adults; ~50% of Netflix's members around the world choose to watch animation content. [14]

2. Wider Spectrum of Applications

- The World in general has a large tech savvy, young population that is also interested in gaming, leading to newer opportunities in game design, animation and VFX.
- Gaming is growing at a CAGR of 12%, with Gamers demanding high quality productions with engaging VFX and realistic animation. [15]
- Global animation and VFX in advertisement is projected to grow at CAGR 10.9% [16]; Advertisers are increasingly finding animated commercials more effective.
- Amongst others, EdTech, Architecture, and Med-tech are expected to increase at CAGR of 11.7% between 2020 and 2024. [17]

3. Advent of New Technologies

- The Extended Reality (XR) segment is expected to grow by a CAGR of 25.9% between 2020 and 2024. [18]
- Investment in AR and VR is increasing year on year, especially in gaming, creating the need for enhanced animation.
- Animation plays key role with the advent of AR/ VR technology.
- The Metaverse is approaching a turning point of rapid development which will increase the demand for 3D modelling and real-time rendering which are core technologies for perceptual interaction through XR devices.
- It is expected that ~50% of Indian animation and VFX studios will adapt to real-time technology (core technologies for perceptual interaction through XR devices, demand for 3D modelling, etc.) by 2025. [19]

[10] https://economictimes.indiatimes.com/industry/media/entertainment/indias-video-ott-market-to-touch-12-5-billion-by-2030-report/articleshow/84517655.cms
[11] As per NITI Aayog estimates
[12] As per NITI Aayog estimates
[13] https://www.protocol.com/netflix-kids-parents-email-top10
[14] https://www.livemint.com/news/india/streaming-platforms-focus-on-animation-kids-content-11617864858778.html
[15] https://www.globenewswire.com/fr/news-release/2022/07/11/2477569/0/en/Mobile-Gaming-Market-Size-is-projected-to-reach-USD-338-billion-by-2030-growing-at-a-CAGR-of-12-3-Straits-Research.html
[16] https://www.globenewswire.com/en/news-release/2022/08/16/2498864/0/en/Global-VFX-Market-will-Generate-New-Opportunities-with-Growth-of-a-CAGR-10-9-and-is-Estimated-to-Reach-a-Value-of-USD-48-9-Billion-by-2028-Growing-Use-of-Visual-Effect-in-the-Films.html
[17] As per NITI Aayog estimates
[18] As per NITI Aayog estimates
[19] As per NITI Aayog estimates

Gaming Sector

1. Growth of Smartphone Users

- In 2021, the number of smartphone users in the world stood at 6.3 Bn and is expected to reach 7.5 Bn by 2026 (at a CAGR of 4% between 2021 and 2026). [20]
- Proliferation of low-cost smartphones has been instrumental in broadening the user base in the country.
- Mobile gaming generated USD 73.42 billion in 2020. The segment is poised to experience a high growth rate with projections estimating a CAGR of 11.05% over the following 5-year period ending 2026. [21]

2. Growing 5G Presence

- By 2023, approximately 42.5% of all smartphones will be 5G ready. [22]
- By 2026, 5G mobile subscriptions worldwide are forecast to exceed 3.5 Bn, led by Asia-Pacific, North America, and Europe. [23]
- 5G is expected to bring a telecom revolution, not just in the country but all over the world. For the gaming sector, this will result in super-fast downloads and uploads, glitch-free multiplayer video games, live streaming, and real-time gaming.

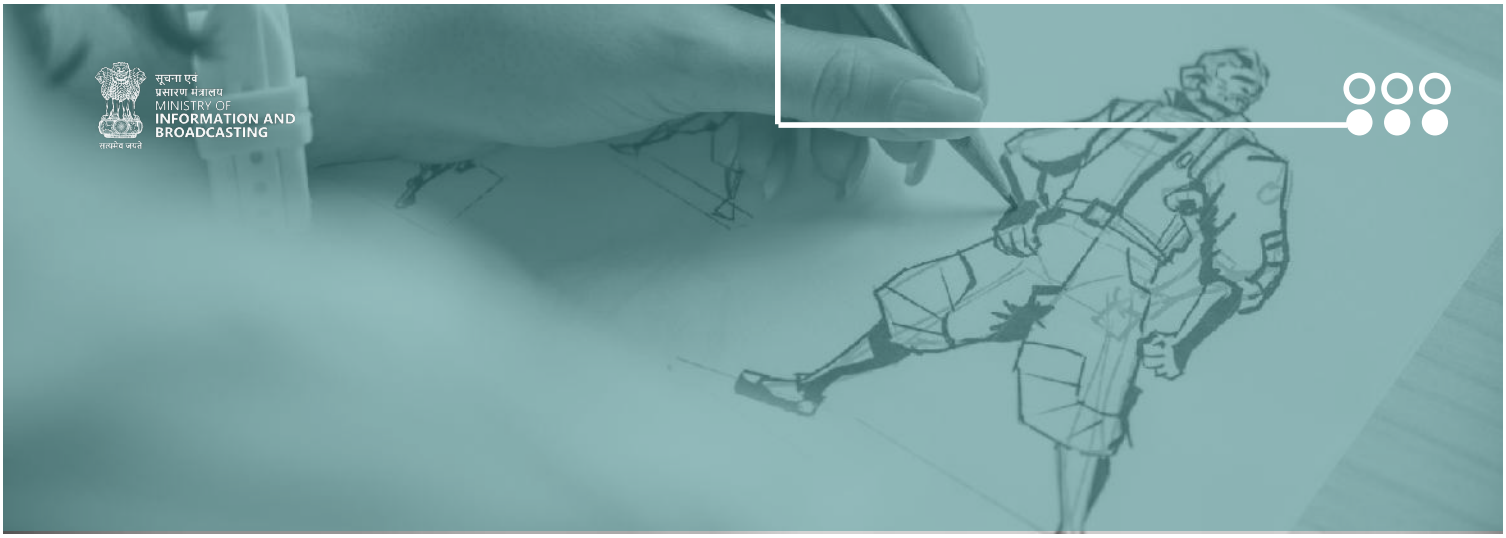
3. Increased R&D Investments

- Major technology and gaming companies are ramping up R&D spend to innovate, understand consumer behaviours, and build novel gaming experiences.
- EA Sports spends up to 25% of its total expenditure on R&D with the proportion of spend increasing every year. [24]
- Similarly, Sony's R&D budget for its Gaming and Networks division accounts for 25-30% of its total R&D spend. [25]

4. Growing PC and Console Gaming

- Several PC brands reported a three-time increase in the sale of gaming laptops in 2020. The sale of gaming laptops grew by 300,000 to 400,000 units in 2020 in India. [26]
- Console games have been adapted and released on mobile devices, thus increasing the demand for mobile gaming. This has also increased the demand for PCs and consoles, as users look to upgrade their gaming experience.
- PlayStation 4 sales doubled in Q1 FY20 as compared to Q4 FY19, and there has been a 200% growth in peripheral sales as well. [27]

[20] https://www.ericsson.com/en/reports-and-papers/mobility-report/dataforecasts/mobile-subscriptions-outlook#:~:text=At%20the%20end%20of%202021%20there%20were%206.3%20billion%2C%20accounting,mobile%20subscriptions%20at%20that%20time
[21] As per NITI Aayog estimates
[22] https://newzoo.com/insights/articles/mobile-game-market-2020-smartphone-users-game-revenues-5g-ready-engagement
[23] https://www.computerweekly.com/news/252492839/Faster-than-predicted-growth-for-5G-with-35-billion-subs-forecast-by-2026
[24] As per NITI Aayog estimates
[25] As per NITI Aayog estimates
[26] https://www.livemint.com/news/india/pc-and-console-gaming-in-india-grows-due-to-covid-19-induced-shift-in-habits-11597150083400.html
[27] https://www.livemint.com/news/india/pc-and-console-gaming-in-india-grows-due-to-covid-19-induced-shift-in-habits-11597150083400.html



Comics Sector

1. Adoption of Digital Technology

- The industry is increasingly releasing digital books and leveraging digital platforms to sell comic books across formats.
- The global digital publishing and content streaming market is expected to grow from USD 69.6 billion in 2019 to USD 112.0 billion in 2023 at a CAGR of 12.6 %. [28]
- Physical book market, 31% of the overall comics market, contributed to 87% of comics sales revenue. [29]
- The rising number of children possessing smartphones is likely to propel the consumption of digital comics.

2. Rising Consumer Demand for Graphic Novels

- Rising consumer demand for graphic novels is expected to drive market growth.
- Overall, graphic novel sales in 2021 were up 65% from 2020. [30]
- 21 million more graphic novels were sold in 2021 than 2020. [31]
- The increase was due to strong sales of graphic novels online.

3. Surging Popularity of Comic Events

- Comic events, such as Comic-Con, have gained popularity across world.
- These conventions provide fans the opportunity to meet other people who share their interests, interact with favourite content creators, receive sneak peeks at upcoming content, and purchase merchandise,
- The 50th annual San Diego Comic-Con recorded over 1,35,000 attendees. [32]

[28] As per NITI Aayog estimates
[29] As per NITI Aayog estimates
[30] https://www.comicsbeat.com/report-graphic-novel-sales-were-up-65-in-2021/#:~:text=Overall%2C%20graphic%20novel%20sales%20in,2020%20%E2%80%93%20a%20very%20healthy%20number
[31] https://www.comicsbeat.com/report-graphic-novel-sales-were-up-65-in-2021/#:~:text=Overall%2C%20graphic%20novel%20sales%20in,2020%20%E2%80%93%20a%20very%20healthy%20number
[32] As per NITI Aayog estimates

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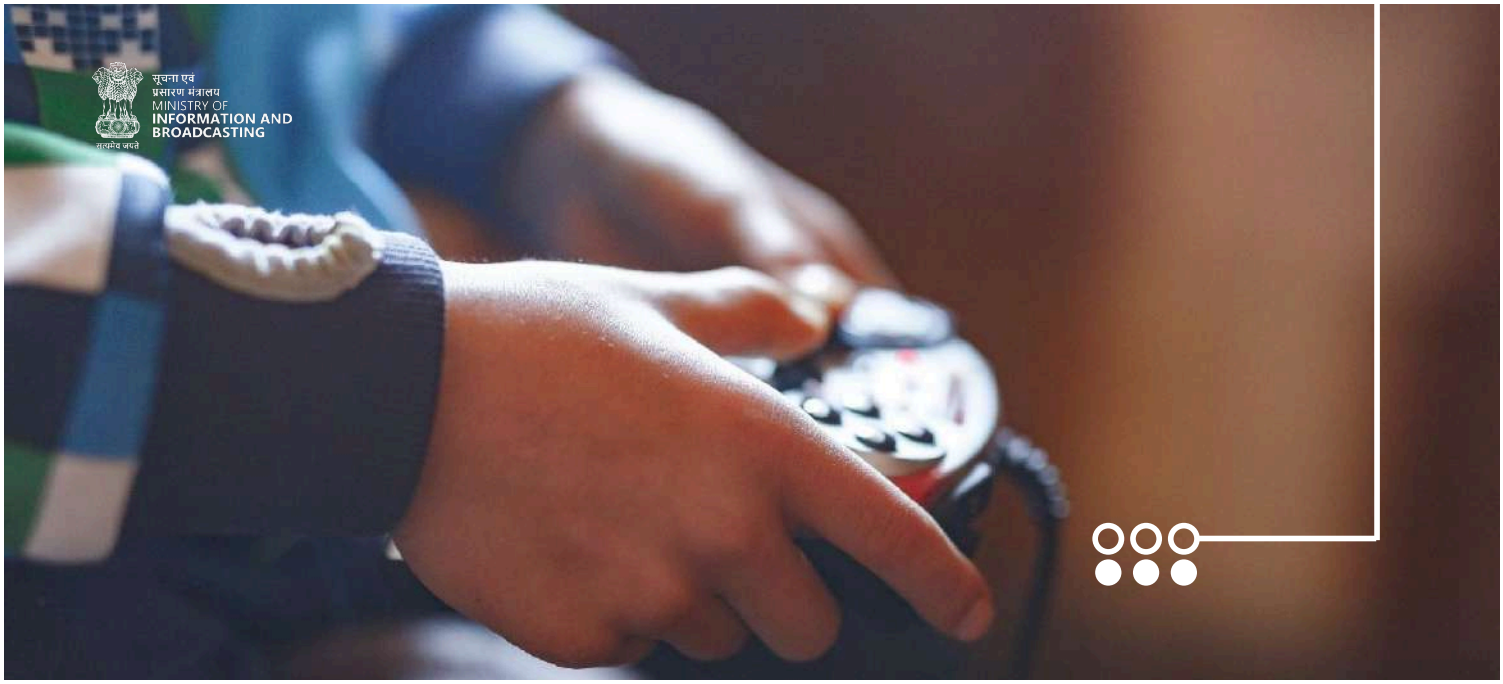
MINISTRY OF INFORMATION AND BROADCASTING

Chapter 2

AVGC Sector - An Indian Context



2.1 Overview of Indian AVGC Sector

The AVGC sector in India has witnessed unprecedented growth rates in recent times, with many global players entering the Indian talent pool to avail offshore delivery of services. Further, the Media and Entertainment (M&E) Industry is expected to grow at an 8.8% CAGR by 2026. As per the experts, within the M&E Industry, the AVGC sector can witness a growth of 14-16% in the next decade. India is emerging as a primary destination for high-end, skill-based activities in the AVGC sector.

The Animation, VFX, Gaming, Comics & XR (together termed the AVGC Sector), an important segment of the Media & Entertainment sector, has emerged as an important growth engine of the Indian economy. This trend has been further compounded by constant outsourcing of animation technology to India. The AVGC sector has the potential to produce powerful content and Intellectual Property.

Beyond the economic impact, the sector has the potential to make Indian culture accessible to the world, connect the Indian diaspora to India, generate direct and indirect employment and benefit the tourism and other allied industries.

Despite the significant potential impact that the sector can have, it remains in nascent stages in India. Thus, there exists a need for policy intervention to support various aspects of AVGC industry. The policy would work towards facilitating future-ready skilling enabled by the industry, making India a go-to hub in the AVGC space, raising India's soft power, promoting Make in India by the creation of original IP, and creating iconic global Indian character brands. Moreover, leveraging the existing policies / schemes in place and the startup ecosystem can assist in unleashing the talent pool existing in this sector and promote career opportunities.

VFX of 'Thor: The Dark World', was partially done by a studio in Mumbai.

[33] As per NITI Aayog estimates

Animation Sector

The Indian animation sector is growing fast and with an increasing number of animated series and features being produced in India, it has also attracted global audiences. Many of India's works are getting distributed globally. The demand for animation expanded with the increase in children's broadcasting viewership, availability of low-cost internet access, and growing popularity of OTT platforms. According to a FICCI March 2022 report, the animation sector has grown by 24% in 2021 to reach USD 370 Million. [34] Further,

- According to the FICCI March 2022 report, the animation sector has grown by 24% in 2021 to reach USD 370 Mn in India. [35]
- Growth of children's channels' viewership led to an increased demand for animated content.
- OTT platforms, too, continued to invest in Indian animated IP.
- Increased demand spurred investments into India.
- Converging production pipelines opened new avenues.

VFX Sector

The Indian VFX industry has been gradually making progress with adaptation of world-class techniques and innovative technology. The content creators are experimenting their storytelling with high-quality VFX advancements.

The VFX industry grew 103% in 2021 to reach ~USD 474 Million [37]. It is estimated that the industry would be worth almost USD 1.7 Billion by fiscal year 2024, [38] indicating a significant growth potential. The Indian Animation and Visual Effects industry has the potential to command 20-25% of the Global market share by 2025, according to the latest media and entertainment industry Report [39]. VFX & Animation can be the next IT-BPM boom for India and play a fundamental role in India becoming a USD 100 billion M&E industry by 2030. [40]

It is expected that around 50% of Indian Animation and VFX studios will adapt to real-time technology or virtual production by 2025. [31] For smaller studios, this could be a challenge because of the high capital investments involved in adopting these technologies, and their use will be limited to high funded projects only.

[34] FICII M&E Report 2022
[35] FICCI M&E Report 2022
[37] FICII M&E Report 2022
[38] https://www.statista.com/statistics/627855/india-market-size-of-animation-and-vfx-industry/
[39] https://www.animationxpress.com/animation/indias-avgc-sector-can-seize-up-to-25-per-cent-of-global-market-share-by-2025/
[40] https://indiaexpo2020.com/news/india-eyeing-usd-100-bn-from-media-entertainment-sector-by-2030
[41] As per NITI Aayog estimates

Gaming Sector

The online gaming segment grew by 28% in 2021 to reach USD 1.22 billion [42]. This exceptional growth is fuelled by demographic factors, change in media consumption habits, as well as innovations by the industry during the past few years. Further, the COVID-19 pandemic has led to a long-lasting shift towards digital means of entertainment, which has resulted in exponential growth of the gaming industry during the pandemic.

India is expected to become one of the world's leading markets in the gaming industry. Growing steadily for the last five years, it is expected to reach 3 times in value and reach USD 3.9 billion by 2025. [43]

The Hon'ble Prime Minister of India, speaking on the announcement of the AVGC Promotion Task Force in the Union Budget 2022-23, highlighted that India is one of the top 5 markets in the world for mobile gaming. The gaming industry is at the core of the AVGC sector, and drives growth across its entire ecosystem.

Comics Sector

With the Indian economy opening in 1991 and major changes in satellite television market, Indian comic readers were introduced to a plethora of international characters in mainstream media. The industry now has a host of new players which have tapped into the India artist pool to come up with the new generation of Indian comics. The genres vary from superhero, mythology, folklore to many other social segments.

The comic book industry is a well-recognized part of Indian popular culture, having produced many familiar cultural icons like, Suppandi, Chacha Chaudhary, Tenali Raman, Detective Moochhwala, Shikkari Shambhu, Mayavi, and Akbar-Birbal.

In 2021, the comics industry witnessed the acquisition of many comic book characters which will eventually be turned into animated series, films, or shorts.

The iconic dragons (Khaleesi's dragons) in Game of Thrones were animated in India.

[42] https://inc42.com/buzz/gst-council-defers-decision-on-raising-tax-rate-for-online-gaming-to-28/#:~:text=According%20to%20a%20FICCI%20and,over%2070%25%20of%20segment%20revenues.
[43] https://economictimes.indiatimes.com/news/international/business/big-bang-growth-of-indias-gaming-industry/articleshow/92053190.cms

2.2 Building Blocks of AVGC Sector

The ultimate realization of the AVGC sector's potential will be a function of taking fundamental measures in the areas of Education, Skilling, and Industry development, in a coordinated manner.

2.3.1 Education

AVGC education has picked up pace in the country with the sector seeing enhanced interest from students. However, at present AVGC education in the country lacks standardization.

There is also no apex institute in India for the AVGC sector unlike other sectors such as engineering, design, management, packaging, etc. There is a need for an academic reference point in AVGC that will assist in baselining the curriculum, providing access to latest infrastructure and technology, functioning as a think-tank and providing overall guidance to the AVGC sector. The number of universities providing the courses have been increasing but there still are very few prominent colleges. [45]

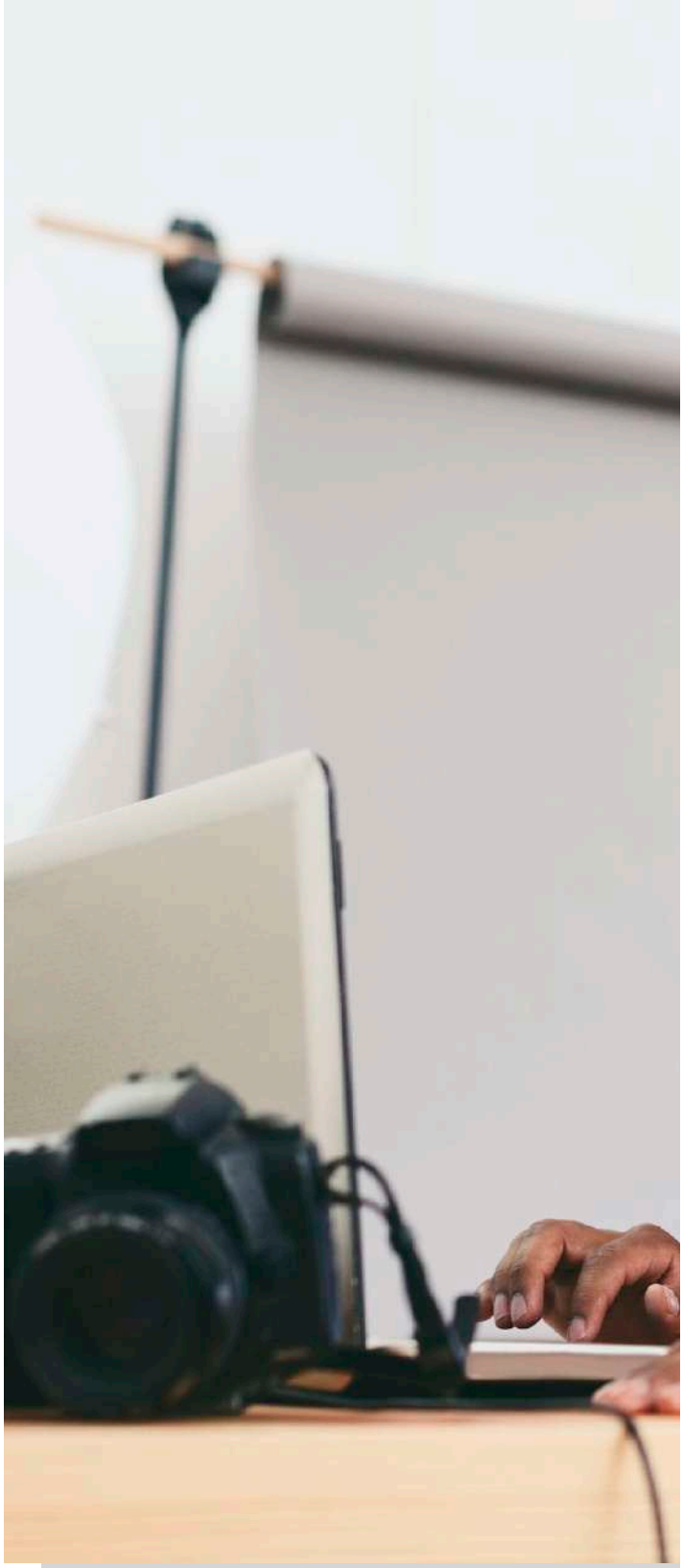
States/ UTs	Animation	VFX	Gaming	Total
Assam	1	0	0	1
AP	0	0	1	1
Chhattisgarh	3	1	0	4
Delhi	1	2	4	7
Gujarat	5	3	8	16
Haryana	6	2	7	15
Jharkhand	0	0	2	2
Karnataka	5	3	12	20
Kerala	0	1	0	1
MP	4	1	1	6
Maharashtra	10	8	2	20
Odisha	2	0	0	2
Punjab	4	1	3	8
Rajasthan	5	2	0	7
Tamil Nadu	3	5	1	9
Telangana	0	1	0	1
Uttar Pradesh	3	3	4	10
Uttarakhand	2	3	2	7
West Bengal	1	0	1	2
Total	**55**	**36**	**48**	**139**

Figure 2: AVGC Educational Institutions in India - FICCI Estimates 2021

[45] As per FICCI estimates

Most of the programmes offered by various AVGC institutes in India are purely academic in nature. There is need to develop curricula for AVGC that is not just academic oriented but also offers industry relevant programmes. This can be achieved through onboarding industry players as trainers, integrating components of AVGC with the National Education Policy, promoting research & development and creating a demand-supply channel where students pursuing courses in AVGC are absorbed by the industry for employment.

Currently, there are 1.85 lakh professionals employed in the AVGC sector, with another 30,000 who are indirectly employed. [46] The sector needs to employ approximately another 20-lakh individuals by 2030 to sustain its growth. Therefore, there is a need for better trained and formally educated individuals in the AVGC sector to meet this employment demand.



2.3.2 Skilling and Mentorship

The AVGC sector has seen significant growth in the last few years fueled by the consumption of content. Global companies are also increasingly tapping into the Indian talent market and outsourcing their businesses to India. Advancement in the technology and job roles have created a major skill gap as the skill sets required are evolving along with the technology. As the job roles evolve, already engaged resources need to be upskilled and new resources need to be trained. This increase in demand for the number of skilled workers has ensured that the skilling ecosystem has larger participation from all stakeholders, including decision making bodies, enablers, executive bodies, and various beneficiaries.

[46] https://bestmediainfo.com/2022/02/indian-m-e-sector-to-grow-at-10-12-avgc-at-14-16-annually-apurva-chandra-secretary-i-b-ministry

Figure 3:

Skilling Ecosystem in India

India is one of the youngest nations in the world with over 60% of the population in the working age group and about 46% of population below 25 years of age [47]. This highlights the need to enhance the skills of the available workforce to improve their employability and contribution to the economic growth of the country. India's National Education Policy (NEP 2020) has reset the existing system and has outlined the new structure of schooling; autonomy to colleges and independent institutions based on their performance. This will help to bring creative education and performing arts to the mainstream, and significantly impact the quality of talent and workforce needed for the AVGC sector. It will also pave way for apprenticeship programs and other multimodal training programs.

Employment Sub-sector wise	2019	FY 2020E	FY 2021E	FY 2022E	FY 2023E	FY 2024E	FY 2025E
Television	5,80,000	5,27,510	5,41,858	5,78,813	6,30,906	6,94,565	7,64,646
Film	2,56,000	2,38,080	2,42,842	2,57,412	2,78,005	3,03,026	3,30,298
Events & Live Performances	1,76,998	1,32,749	1,39,386	1,56,112	1,84,213	2,10,003	2,39,403
Art and Culture	1,21,450	97,160	1,02,989	1,11,229	1,20,127	1,29,737	1,40,116
Print	88,408	82,060	83,579	85,935	90,181	92,796	96,461
Advertisement & OOH	48,817	41,983	45,761	51,253	58,940	66,013	73,935
Radio	44,848	43,188	44,203	46,568	50,154	53,339	56,726
Sound and Music	36,800	30,147	32,860	37,247	42,722	48,019	53,782
Theme Park	30,751	23,063	25,369	28,413	32,249	36,119	40,092
Digital & OTT	29,298	38,673	49,502	61,878	80,441	1,00,551	1,25,689
Total	**15,11,610**	**13,81,080**	**14,64,394**	**16,19,671**	**18,14,704**	**20,31,274**	**22,90,686**

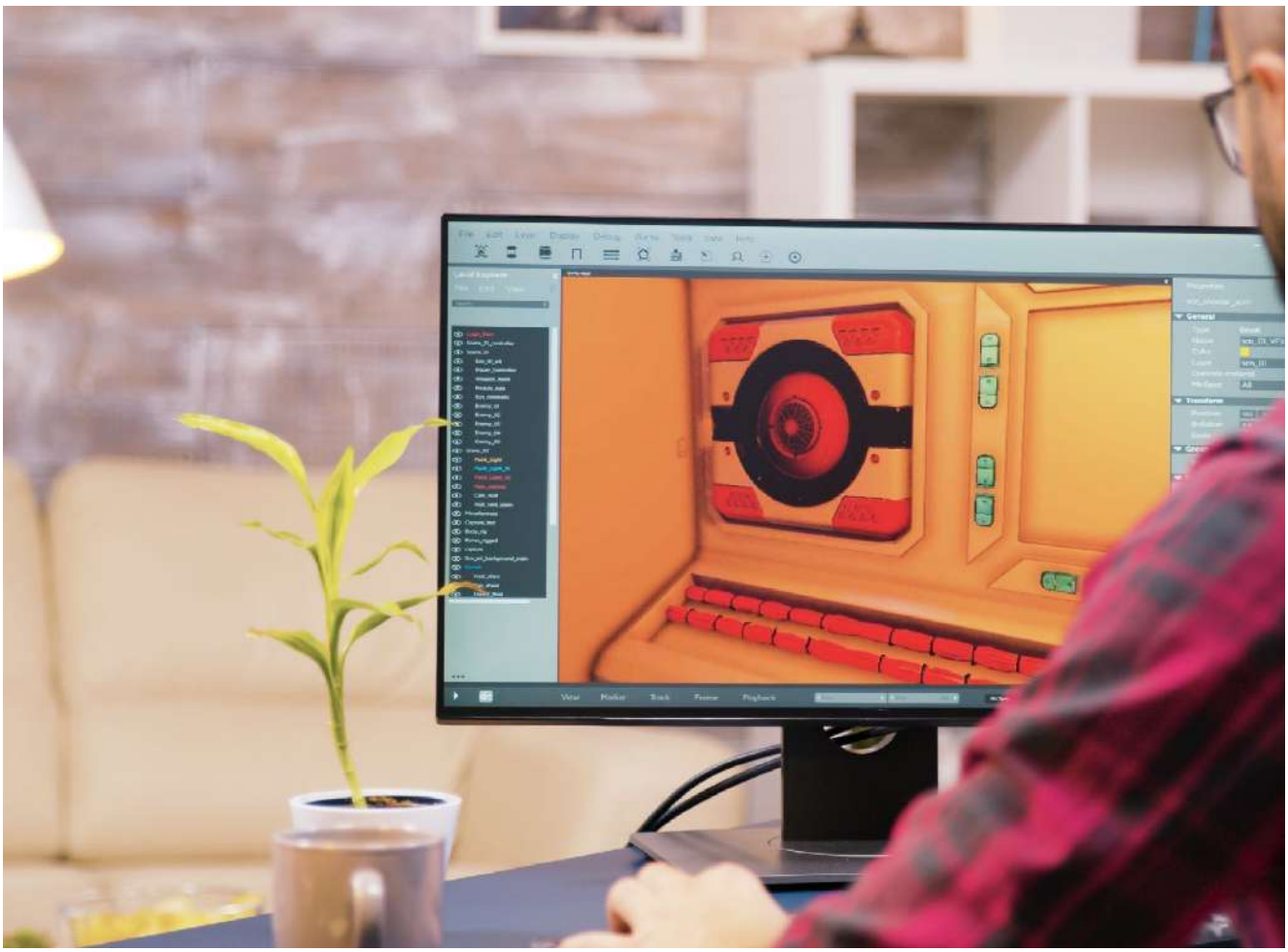
Figure 4: Details of employment in M&E Sector- FICCI Estimates

[47] https://indianexpress.com/article/explained/half-indias-population-under-age-30-nfhs-explained-7910458/

The skilling ecosystem in India currently offers 3 categories of courses: certificate, diploma, and degree. These courses are offered through a limited number of NSQF aligned institutions or the in-house training facilities started by AVGC companies.

Currently there are a total of 762 institutions offering different level degrees in animation, 374 in VFX, and 108 in Gaming [48]. Further, approximately 1,15,000 trainings are conducted annually in the sector with the estimated breakdown into government-incentivised (10,000-15,000), vocational institutes (60,000-70,000), institutions of eminence (8,000-10,000) and higher education institutes (18,000-20,000).

The key bodies in the skilling ecosystem include the MSDE, MHRD, MORD, and other central ministries. The essential enablers include NSDC, SSD, DSCs, SSCs, NCVET, among others, implementing bodies include ITIs, polytechnics, JSS, training providers, captive training by employers, schools, colleges, and universities. This skilling framework will benefit the youth, including people from marginalized societies, unemployed youth, low-income groups, school and college students with different educational backgrounds.



[48] As per FICCI estimates

2.3 Challenges to AVGC Sector in India

The potential and reach of the AVGC sector in India is significant in terms of the employment opportunities it can create, coupled with industry development. The industry is in its nascent stage and is still overcoming certain challenges which may be broadly categorized as below:

Lack of authentic data for AVGC sector

Non availability of data such as employment, industry size, education intuitions, etc. for AVGC sector, makes decision making tougher for entities.

Skill Gap in Education and Employment sector

Creation of AVGC ecosystem within the country requires workforce with specialized skills for various roles such as animators, developers, designers, localization experts, product managers, etc. At present, the education system at school and university level does not have a dedicated curriculum focused on AVGC. With fast moving technologies expected to revolutionize the sector in the coming decades, it is expected that the demand for talent will only grow further in terms of both, the number of professionals required, and the specialization of skills. For skilling and vocational training too, there is a lack of dedicated vocational training modules for various other skills required by the sector.

Infrastructure Constraints

Quality of training infrastructure plays a vital role in the learning and development of a student. In the absence of adequate training infrastructure, there is deterioration in the quality of training being delivered to students, thus impacting the quality of output and human resource for the AVGC industry.

Less focus on Research Development

There is also a need to develop research related narrative for the AVGC-XR sector, so that dedicated focus can be given to it.

Absence of an AVGC academic reference point in India

There is no apex institute in India for the AVGC sector unlike other sectors such as engineering, design, management, packaging, etc. There is a need for an academic reference point in AVGC that shall help baseline the curriculum, provide access to latest infrastructure and technology, function as a think-tank and provide overall guidance to the AVGC industry. The number of universities providing courses have been increasing, but we have very few recognizable colleges like NID, IITs. Also, the intake for existing colleges is very low currently.

Need for Holistic Academic Curriculum

Most of the AVGC related programmes offered by various institutes in India are academic in nature. Thus, there is a need to develop a holistic curricula offering industry relevant programmes. This can be achieved through onboarding of industry players as trainers, integrating components of AVGC with the National Education Policy, promoting research & development and creating a strong academia-industry partnership for employment.

Regulatory Framework

At present there is no national level policy level framework for AVGC-XR Sector. Further, there is no principle-based uniform national level institutional framework for the online skill gaming industry in India to govern, regulate & enforce the gaming ecosystem, thus resulting in states enacting prohibitory legislations, creating regulatory uncertainty and negative perception of the gaming sector. It may be noted that GoI has rightfully constituted an inter-ministerial Task Force to look at gaming sector holistically.

Uncertainty regarding the GST on skill-based games has also been highlighted by the industry as a financial challenge.

Need to explore the Startup Ecosystem of India

Promotion of innovative ideas and entrepreneurship in the AVGC sector in India will act as an enabler for the entire industry. The National Design Business Incubator of NID or Centre for Innovation, Incubation & Entrepreneurship (CIIE) of IIM A has provided the necessary impetus in the field of design and numerous functional areas respectively. Aspiring entrepreneurs not only create various job opportunities but also foster economic growth of the industry. New inventions and disruptive innovations will enable the Indian AVGC industry to grow at a faster pace, matching the international standards. Hence, there is a need to promote an ecosystem of start-ups in the AVGC sector through incubation facilities.

Availability of funds for dedicated use by the AVGC sector

At present there is no dedicated fund available for the AVGC sector which acts as an obstacle for the growth of the AVGC sector in India

Lack of globally-popular Indian IPs

AVGC sector in general has suffered a lack of original Indian intellectual property as most work in this sector is outsourced. Animation industry is dominated by services to other countries and thus it is important to incentivize local production with additional concessions to increase local IP.

2.4 Critical Success Factors for AVGC Sector in India

Emerging key drivers of growth, leading to demand for high quality talent:

Majority of the incremental employment in the AVGC sector is expected to be in pre-production and marketing with highly skilled job roles such as storyboarding, content creation, design, planning and promotion that require NSQF (National Skills Qualifications Framework) levels 4 and above with a graduate degree. Further, as per some estimates, in the next 10 years, the AVGC sector will require 24,000 [49] professionals with a graduate degree or above and there will only be around 16,000 students graduating from recognized degree awarding institutes.

Dedicated investments in cutting edge technology is the need of hour:

The Indian animation and VFX segment has understood that export growth will be driven not by price arbitrage alone, but by accepting more complex projects and investing in cutting-edge animation and VFX technology. Taking these complex projects will also involve having access to latest digital post-production AVGC labs, post-production technologies such as motion capture, 2D & 3D animation, and high-speed rendering along with state-of-the-art hardware and software.

Need for a nodal ministry to drive the Animation VFX Gaming & Comics (AVGC) sector

Ministry of Information & Broadcasting is more suited because it is the custodian of Audio/ Visual services in India and have taken several initiatives to promote the AVGC sector

Increase in captive centers across India, leading to access to top international filmmakers:

International studios are expressing interest in either opening their own studios in India or investing in existing Indian companies. This is not only bringing in investments, but also adding to the creative and technological talent pool in India. Having an arrangement like this will also give Indian market direct access to top international film makers, directors & production houses.

More impetus to be given to R&D

R&D plays a very important role in driving the entire AVGC sector. Therefore, focused interventions need to be undertaken for the sector.

Dynamic AVGC industry requires governance and management through an industry driven collaboration:

The dynamic nature of this industry, needs an industry think tank, to guide drafting the policies for the growth of this sector, actively collaborate with industry and international AVGC institutes, and enhance the global positioning of the Indian AVGC sector.

On similar lines as the IT revolution, the Indian AVGC industry, enabled with right interventions can be another growth story for India and contribute to providing high quality talent to the industry.

[49] https://www.newindianexpress.com/magazine/voices/2019/jan/20/animation-sector-is-the-future-of-jobs-1927228.html

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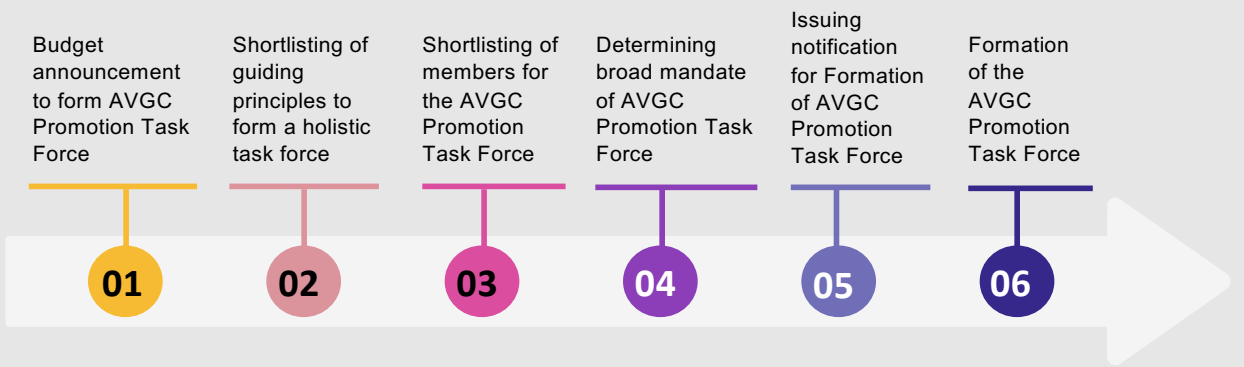
Chapter 3

AVGC Promotion Task Force

Figure 5:

Methodology followed for preparation of AVGC Promotion Task Force Report



3.1 Announcement to form an AVGC Task Force

To realize the potential of the Indian AVGC industry, ***in the Budget speech for the fiscal year 2022-2023, Hon'ble Finance Minister of India, Smt. Nirmala Sitharaman announced the formation of an Animation, Visual effects, Gaming, and Comic (AVGC) promotion Task Force.*** The AVGC sector has the potential to present positive prospects for investors while also generating employment opportunities for the youth. Newer industry developments, such as discussions around metaverse and education digitization, could aid the AVGC sector's growth in India and prepare it to become a global leader. **Moreover, the larger thought supporting the formation was to unleash the scope and reach of AVGC sector in India to become a torch bearer of "Create in India" and "Brand India".**

The AVGC Promotion Task Force was formed to recommend strategies to provide impetus to the AVGC sector and increase domestic capacity to serve Indian and global markets. One of the major work areas for the AVGC task force was to set up robust policies to encourage capacities and capabilities of the Indian AVGC sector by creating employment opportunities which will eventually drive the economic growth of the country.

The first meeting of the AVGC Promotion Task Force was held on 4th May 2022, under the chairmanship of Secretary, MoI&B. The core task force had representation from the industry and government, and the discussions majorly revolved around AVGC academia in India, role of skilling in AVGC, gaming industry in India and the need for robust policies to boost the growth of AVGC sector. It was decided during the meeting that four sub task forces shall be constituted namely for, **Education, Skilling, Gaming, and Industry & Policy**. These identified sub task forces, over the period of time have worked towards devising strategies of growth through targeted interventions in their respective areas. The recommendations from these identified sub task forces may broadly be categorized in the area of policy formulation, capacity building, infrastructure development, technological access, Industry development, research and development, creating local IPs and enhancing export potential among other interventions.

3.2 Guiding Principles of Task Force Mandate and Composition

1. Public-Private Collaboration

The AVGC-XR sector, under the umbrella of Media and Entertainment has been categorized as a sunrise sector in India. While the industry stakeholders play an important role in defining the sector and creating employment opportunities for individuals, the role of the government in this regard is equally important in terms of drafting futuristic, business friendly policies.

For successful implementation of this policy, it is envisaged that the Government (Central and State) and the industry will work in close collaboration with each other to develop a roadmap of growth for the sector in India.

The AVGC task force has equal representation from industry stakeholders and government.

2. Inter-ministerial Convergence

The growth and development of the AVGC sector in India is a collaborative effort as it requires interventions from multiple ministries in the area of education, skilling, co-production, promoting Indian content, technology, finance, infrastructure etc. Hence, inter-ministerial convergence is of prime importance for the development of an action report and further, for realizing the broader mandate of the AVGC Task Force.

3. Integrated approach for sectoral development

To ensure overall growth of the AVGC sector in India, an integrated approach shall be adopted to cater to the overall need of the sector. Key enablers for the sector are identified below:

- Skilling and Mentorship
- Capacity Building
- Education
- Access to Finance
- Access to Technology
- Infrastructure Development
- Creation of high-quality Content
- Promotion of Indian content
- Market access and Development
- Gender, Equality and Social Inclusion

3.3 Composition of Core AVGC Task Force

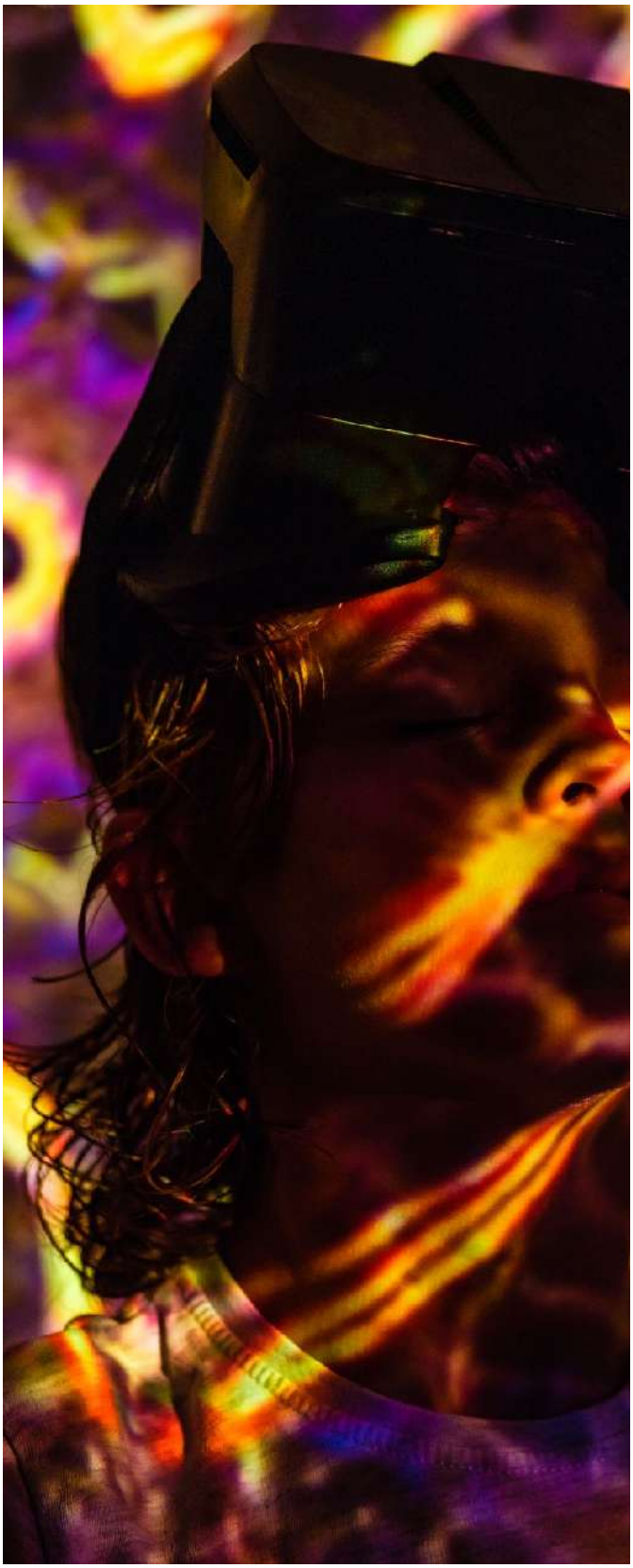
S.No	Members	Role
1	Sh. Apurva Chandra, Secretary, Ministry of Information and Broadcasting	Chairperson
2	Sh. Rajesh Aggarwal, Secretary, Ministry of Skill Development & Entrepreneurship	Member
3	Sh. K Sanjay Murthy, Secretary, Ministry of Education, Department of Higher Education	Member
4	Sh. K Rajaraman, Secretary, Ministry of Electronics, and Information Technology	Member
5	Sh. Anurag Jain, Secretary, Department for Promotion of Industry, and Internal Trade	Member
6	Smt. Neerja Sekhar, Additional Secretary, Ministry of Information and Broadcasting	Member
7	Administrative Secretary in charge of AVGC Policy, Government of Karnataka, Maharashtra, and Telangana	Member
8	Prof. Anil D. Sahasrabudhe, Chairperson, All India Council of Technical Education	Member
9	Dr. Dinesh Prasad Saklani, Director, National Council of Educational Research & Training	Member
10	Sh. Mohit Soni, Chief Executive Officer, Media, and Entertainment Skills Council	Member
11	Sh. Biren Ghose, Country Head, Technicolor India	Member
12	Sh. Ashish Kulkarni, Founder, Punaryug Artvision Pvt. Ltd.	Member
13	Sh. Jesh Krishna Murthy, Founder and CEO Anibrain	Member
14	Sh. Keitan Yadav, COO and VFX Producer, Redchillies VFX	Member
15	Sh. Chaitanya Chinchlikar, Chief Technology Officer, Whistling Woods International	Member
16	Sh. Kishore Kichli, Sr. Vice President and Country Head, Zynga India	Member
17	Sh. Neeraj Roy, Managing Director, and CEO of Hungama Digital Media Entertainment	Member
18	CII Nominee from AVGC sector	Member
19	FICCI Nominee from AVGC sector	Member
20	Sh. Prithul Kumar, Joint Secretary (Films), Ministry of Information and Broadcasting	Member Secretary

Figure 6: Members of AVGC Promotion Task Force

3.4 Terms of Reference of the AVGC Promotion Task Force

The AVGC Promotion Task Force has been bestowed with the responsibility of devising policies and strategies of growth for the AVGC sector in India. The mandate has been further outlined in the form of terms of reference as below:

- Recommend approaches for boosting employment and job creation opportunities for youth in this sector in urban and rural areas.
- Facilitate development of progressive policies, including a national AVGC Policy, that will promote growth of the sector.
- Give recommendations for a national curriculum framework for Graduation, Post-graduation and Doctoral courses in AVGC related sectors.
- Facilitate skilling programmes and initiatives in collaboration with academic institutions, vocational training centres & Industry.
- Recommend measures for uniformity and alignment to international best practices in skilling, education, and content delivery.
- Provide recommendations on developing Centre-State synergies in AVGC sector
- Promote creation of robust infrastructure in the form of Regional AVGC hubs across the nation.
- Facilitate concentrated promotion and market development activities to extend global reach of Indian AVGC Industry and also enhance the export potential of the sector.
- Support industry in carrying out Co-Innovation & Research activities, helping India create its IP depth in AVGC sector.
- Recommend incentives to attract FDI in AVGC sector to make India a favourable destination for ease of doing business.



3.5 Formation of Sub Task Forces within AVGC Task Force

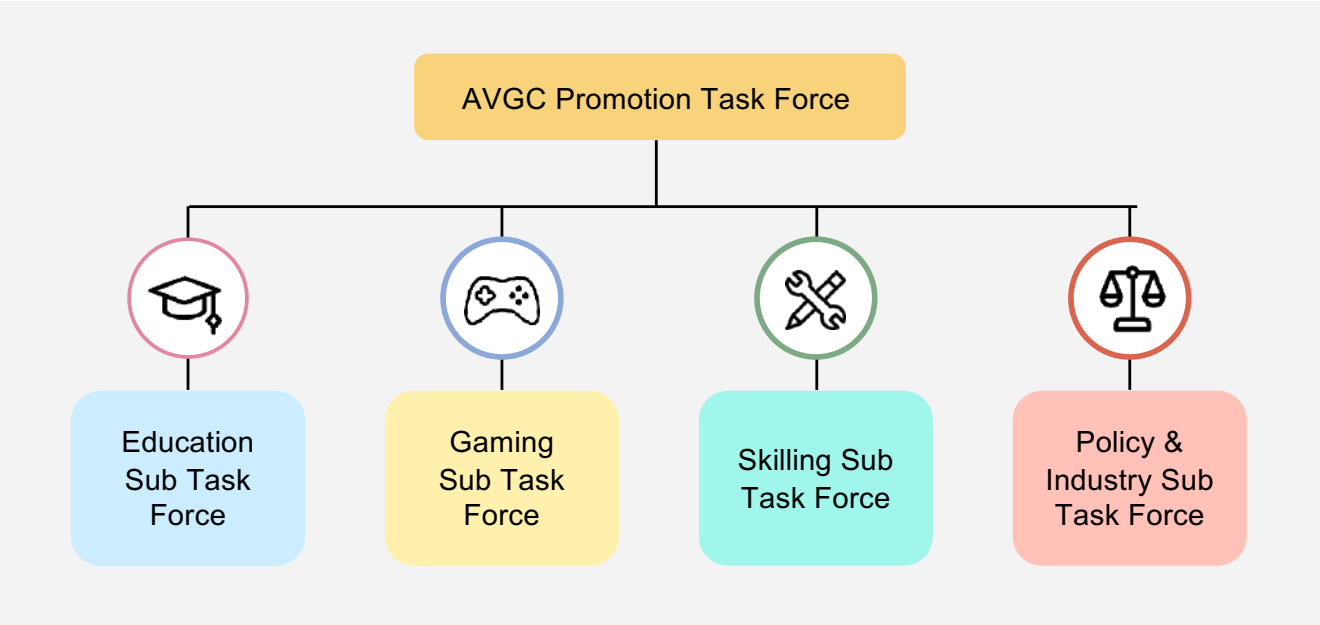


Figure 7: Sub Task Forces under AVGC Promotion Task Force

The core task force was broadly divided into **4 sub task forces.**

Each sub task force was given a set of Terms of Reference basis which stakeholder consultations were conducted with the sub task force members. The terms of Reference can be referred to in Annexure A. The key discussion points were carried forward to subsequent stakeholder consultations as action items. All members of Sub Task Forces had 3-4 meetings with their members to discuss the terms of reference in detail.

Post the deliberations and consultations amongst sub task force members, each of the sub task forces prepared detailed reports with a set of recommendations, to be considered for incorporation in the core sub task force action report.

The recommendations received were further categorized across the **identified levers.**

Avatar was one of the most expensive movies ever made, with a budget of USD 133 Bn. 200+ VFX shots for this movie was done by an Indian company.

सूचना एवं प्रसारण मंत्रालय
MINISTRY OF INFORMATION AND BROADCASTING

Chapter 4
Recommendations of AVGC Promotion Task Force

Market Access and Development	IEC, Awareness & Outreach	Sector Potential Realization	Robust Infrastructure for AVGC					
Skilling and Mentorships	Defining AVGC related Job Roles, Qualification packs & strong integration with the Education framework	Enhanced role of Industry in AVGC sector related Skilling & Mentorship'	Focus on lifelong learning for professionals in AVGC Sector	Expanding Geographic & content reach of Skilling, improving quality of content created	Focused attention to development of Train the Trainer models	AVGC related skilling courses in schools	Recognition of Prior Learning (RPL) in the AVGC sector	Capacity Building of professionals working in the AVGC Sector for future readiness of the sector
Education	Standardization of Education focused on AVGC sector	Promoting Creative Thinking in schools	Promoting high quality and well-structured AVGC education across Under Graduation and Post-Graduation	Developing course content and delivering courses at par with International Standards				
Increasing Access to Technology Creating Financial Viability	IP and Patent Related	R&D and Innovation	Technology Access					
Promoting high-quality Content	Launch of a 'Create in India' initiative with exclusive focus on content creation	Creating global-ready Content	Promoting India Content	Promoting children specific content in India				
Diversity, Equity and Inclusion								

4.1 Market Access and Development

4.1.1 IEC, Awareness & Outreach

- Government of India in collaboration with AVGC Industry may undertake a **National level IEC campaign to increase awareness regarding the AVGC sector** among parents, students, communities, and professionals across India with focus on socio-economic potential of the sector. The campaign may also include dedicated outreach activities for schools and colleges.

- **Government of India in collaboration with industry, may conduct an annual international AVGC Expo with regional events,** to establish India as a leading service and solution hub for AVGC sector globally. The Expo will focus on FDI in AVGC, market access creation, employment generation, new age technologies & knowledge exchanges, co-production partnerships & IPR. In the run up to the Expo, dedicated hackathons focusing on different themes, including, gaming, creation of Indian content, new technology may be organized as well. For the regional chapters of the AVGC Expo, the respective State Governments may take leadership positions.

- For the purpose of developing AVGC market both, International and domestic, for the Industry, including for budding entrepreneurs, an AVGC Helpdesk maybe established within the Film Facilitation Office. The helpdesk (a portal), can also provide information on latest trends and opportunities in the sector.

- Government of India, in collaboration with Industry may also conduct an annual Gaming Expo. This outreach event will encompass the following :

  - ✓ The Expo will focus on FDI in Gaming, market access creation, employment generation, new age technologies & knowledge exchanges, co-production partnerships & IPR.
  - ✓ Gaming Startup Fests for showcasing innovation and providing a collaboration platform for gaming Startups.
  - ✓ In the run up to the Expo, dedicated hackathons focusing on different themes.
  - ✓ To encourage creation of high-quality Indian IPs by small businesses, start-ups and independent game developers, an annual competition "Game India Hackathon" may be organized to showcase games based on Indian themes.

- AVGC to be considered as **a dedicated sector while organizing State Business Promotion events and initiatives by Indian States**. To promote AVGC sector in the states, respective State Governments to plan dedicated workshops with the AVGC players present in their state, to increase awareness on Government schemes for all stakeholders, including MSME and Start Ups.

- Government of India, through sponsorships, **may ensure representation of sector's MSME and Start Ups**, accredited and affiliated institutions, Industry professionals etc in various national & international industry events.

- **Initiatives to showcase India's AVGC leadership and offerings on many platforms including, Startup India, Make in India** and other global/national platforms may also be undertaken by Government of India. Other Ministries to be encouraged for having a dedicated AVGC pavilion in Global and India Expos.

4.1.2 Sector Potential Realization

- Government of India to **publish a Vision document** on promotion of AVGC Sector in domestic and international markets with focus on market potential for each sub sector, industry friendly policies, employment generation, content creation, center state partnership, promoting Indian heritage and culture among other areas.

- It is proposed that **Ministry of Information and Broadcasting in collaboration with other key Ministries, may take up the task of setting up country's first National Center of Excellence for AVGC.** The National Centre of Excellence (NCoE) on AVGC may offer degree courses in the field of AVGC. The NCoE has been envisioned to deliver mandate, across Skilling, Education, Industry Development and Research and Innovation for the AVGC sector. Being the first of its kind institution in the AVGC sector, the NCoE will serve as a reference point for the AVGC industry across different areas. **AVGC NCoE to be established as a nodal agency** with focus on education and training standards, benchmarking practices to international standards, carrying out quality assurance across industry, promoting industry access to domestic and international markets and defining various operational frameworks for AVGC industry and academia.

- It is proposed to formulate a **national framework for online skill gaming** that protects interests of the users at large and ensures structured growth of the industry. For various **classification of games** such as, casual games, real money games and e-sports, relevant regulatory and market development support may be provided by the Union Government.

- **Regional Centres of Excellence (RCoEs) on the lines of NCoE may be established in collaboration with State Governments.** These Centers to be established in association with studios and acclaimed universities to deliver high quality AVGC education. Centre of Excellence and creative entrepreneurship for AVGC, with focus on education and skilling may be developed on PPP model across the country, in collaboration with International, National and State level stakeholders in the sector.

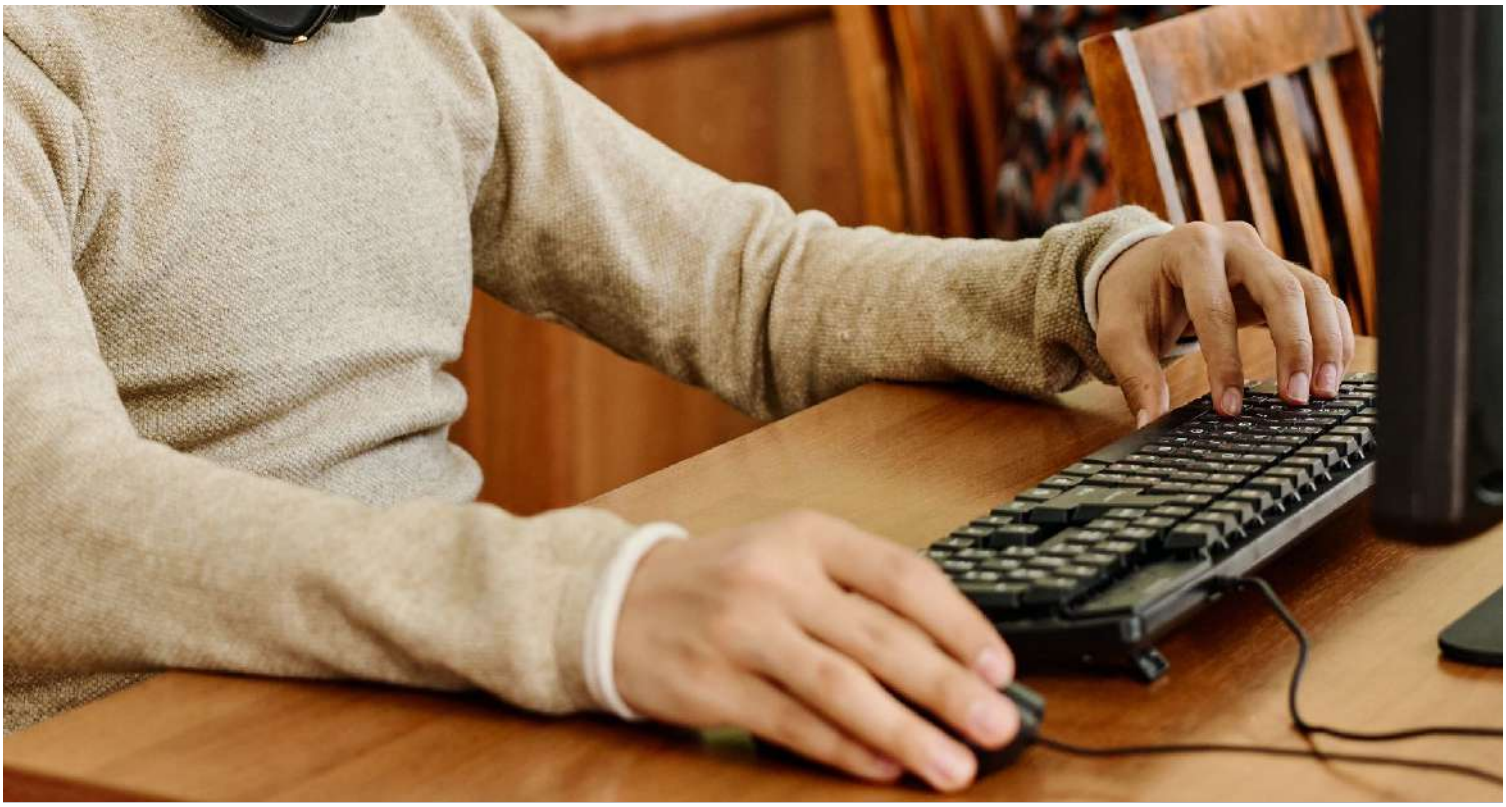
4.1.3 Robust Infrastructure for AVGC

- **Industry may also be incentivized to invest in R&D centers at these COEs** through recognition of such funds within the Corporate Social Responsibility.

- **It maybe explored to establish dedicated Centers of Entrepreneurship focusing on AVGC in different SMART Cities** via public-private partnerships.
- Through **effective PPP models, existing COEs on AVGC to be strengthened and new ones to be conceptualized.** This will promote Industry's access to technology, R&D facilities, Incubation Centres.

- **Software Technology Parks of India (STPI) may establish Centres of Entrepreneurship (CoEs) and technology incubators focusing on AVGC** related technology for building India's leadership in the AVGC segment.

- Effective **implementation of the Digital Village Programme under Digital India initiative will promote the techno-economic viability of digital technology** by introducing initiatives for efficient applications in rural regions and capacity development activities related to information technology systems.



4.2 Skilling and Mentorships

4.2.1 Defining AVGC related Job Roles, Qualification packs & strong integration with the Education framework

- The unprecedented growth witnessed by the AVGC sector in India, has also led it to become a preferred choice of career for many in the country. Further, as has been highlighted by the industry, the scope of skilling and mentorship initiatives needs to be widened to also include lifelong learning. Therefore, there is a need for government's collaboration with the **industry to promote future ready frameworks for job roles in the sector, promote faculty development programs, develop qualification packs etc.** Further, job roles need to be identified based on geographical clusters to define skill development opportunities across local, regional, national and international levels.

- To standardize skilling initiatives across the AVGC sector, the industry is advised to take up the activity of defining various job roles and their associated skill set in the sector. This will contribute to the standardization of skilling initiatives across the AVGC sector. For the same purpose, AVGC may be brought into the fold of National Skills Qualification Framework (NSQF) to augment learner capability and develop qualification packs comprising, National Occupational Standards (NOS) aligned to job roles in consultation with the industry.

- Considering the growing market for applied gaming, and its application by industries to train and develop their workforce, it is suggested that **applied games be included in the school curriculum, especially at upper primary and secondary levels**, in line with the National Education Policy 2020. This would not only create a permanent demand source for the non-Pay2Play gaming sector in India, but also create opportunities for expansion of Indian educational games in the global market. **Special financial incentives for enterprises developing educational games and other form of applied games** may also be considered.

- A **UGC-recognized curriculum for Undergraduate and Postgraduate degrees may be established** with a dedicated and significant component of practical skills which may be imparted through a mix of in-house training by faculty as well as mentorship by industry recognized mentors. Mapping and upgrading existing curriculum of educational institutions (Short- & Long-term trainings or courses) as per NSQF guidelines to meet industry and international standards.

4.2.2 Enhanced role of Industry in AVGC sector related Skilling & Mentorship

- As UGC has already formed a committee which is looking into **hiring of industry professionals as faculty members, the recommendations and plan of implementation may also be adopted for the AVGC sector**. This will help the sector to be more industry focused and produce job-ready graduates. The following to be undertaken as part of the above recommendation:
  - ✓ Working professionals as teachers (Professor of Practice and Assistant Professor) to be included in the Department of Arts & Sciences.
  - ✓ Formal Job description structures to be constituted where the professionals start as lecturer & go onto become Senior Professor/ Dean/ Head of Department.
  - ✓ Encourage vertical mobility among faculty. For the same purpose, faculty certification norms to be laid out at entry level and for every promotion, to ensure adequate upskilling is undertaken by each faculty regularly.
  - ✓ Industry participation to be sought by 'secondment' of professionals by organizations as faculty in HEIs/ schools. Organizations can continue to pay such personnel's salaries and that amount to be considered as part of Corporate CSR contribution.
- It is also recommended for **industry partners to work closely with formal and vocational training institutions to ensure linkages between skilling demand & supply**. The training content for AVGC to be developed with inputs received from the industry including from studios working with international clients, to bridge the gap between curriculum and actual job.
- **A job aggregation platform to be developed by AVGC Industry** associations and consortiums, showcasing all relevant contractual and permanent jobs for the AVGC sector.

4.2.3 Focus on lifelong learning for professionals in AVGC Sector

- The mentorship components in education in aspects which may not involve high level of physical interaction between the mentors and the mentees may be delivered through Massive Open Online Courses (MOOCs) in which one trainer may simultaneously train students from multiple educational institutions. Promoting lifelong learning in AVGC Sector, Ed-Tech companies to be encouraged to tie up with international Institutions to run AVGC specific courses in India.
- **Best practices** may be drawn from the various schemes of the Ministry of Skill Development & Entrepreneurship involving industry partnership for training and mentoring.

4.2.4 Expanding Geographic & content reach of Skilling, improving quality of content created

- **NSDC to promote AVGC centric courses in PMKK and PMKVY** centers in the urban and rural areas throughout the country.
- **Mobilization of DSCs** in order to identify the demand and opportunities at the district level.
- Like the Technical Intern training Program (TITP), **Memorandum of Cooperation (MoCs) may be signed between India and other developed global AVGC markets** – US, Japan, South Korea, Germany, for providing internships (six months to a year) to Indian AVGC professionals. This will provide Indian professionals an opportunity to get exposure to the AVGC skillset of the developed countries and sharpen their skills accordingly.
- Signing of focused **MoUs between global technology vendors and Government recognized Indian AVGC industry associations** maybe encouraged to facilitate the following:
  - ✓ Contracts may include subsidized versions of their products and services for meritorious students, awarded startups and independent developers, etc.
  - ✓ Discounted/ Subsidized training programs.
  - ✓ Showcase Indian gaming IPs as 'best in class' in terms of how their products and services are being used.
  - ✓ Showcase usage of their technologies for gamification or extended use of their products & services.
- To promote entrepreneurship and innovation among AVGC Industry players, **it is suggested to find convergence opportunities with Atal Innovation Mission**. The AVGC industry can benefit from the already established network of over 8,700 Atal Tinkering Labs that focus on fostering curiosity, creativity, and inculcating skills such as design mindset, computational thinking, adaptive learning, physical computing etc.

4.2.5 Focused attention to development of Train the Trainer models

- The AVGC Industry collaborates to develop a Trainer's portal. The portal will have the following features:
  - ✓ Availability of latest learning material at subsidized rates.
  - ✓ Training Courses to promote cross-sectoral learnings.
  - ✓ Courses having joint certification by global companies like Adobe, Autodesk etc.
  - ✓ Facilitation of a trainer exchange programme.
  - ✓ The portal may also facilitate knowledge sharing sessions with stakeholders in the Indian IT Industry to learn about arrangements for technology transfer, co-production, and outsourcing of work between Indian and foreign companies.
  - ✓ Facilitate train the trainer courses to ensure trainers are up to date with real time demand in the industry as per international standards.

4.2.6 AVGC related skilling courses in schools

- **Vocational education in schools to be expanded and streamlined** to include courses from the AVGC sector. This will also be aligned to the NSQF guidelines.

- AVGC Sector may also **be introduced in schools through Hackathons, Gaming design competitions** etc. This will provide an opportunity to students to hone their design and creative skills

- As giving exposure to students in school to the AVGC sector is a key awareness generation element of outreach, **it is important to focus on the quality of teachers available at the level of schools**. Particularly for AVGC sector, the following is recommended:

  - ✓ Requirement of at least 2 faculty (one for K-5 & other for 6-12) well educated & trained teachers for delivery of the curricular content and for mentorship & identification of talent among students in each school.
  - ✓ Additional subject-matter-specific faculty to be brought in on a per-class on-demand basis.
  - ✓ Special 'train the high school teacher' program to be created by all HEIs for training teachers to teach AVGC subjects at the high school level.

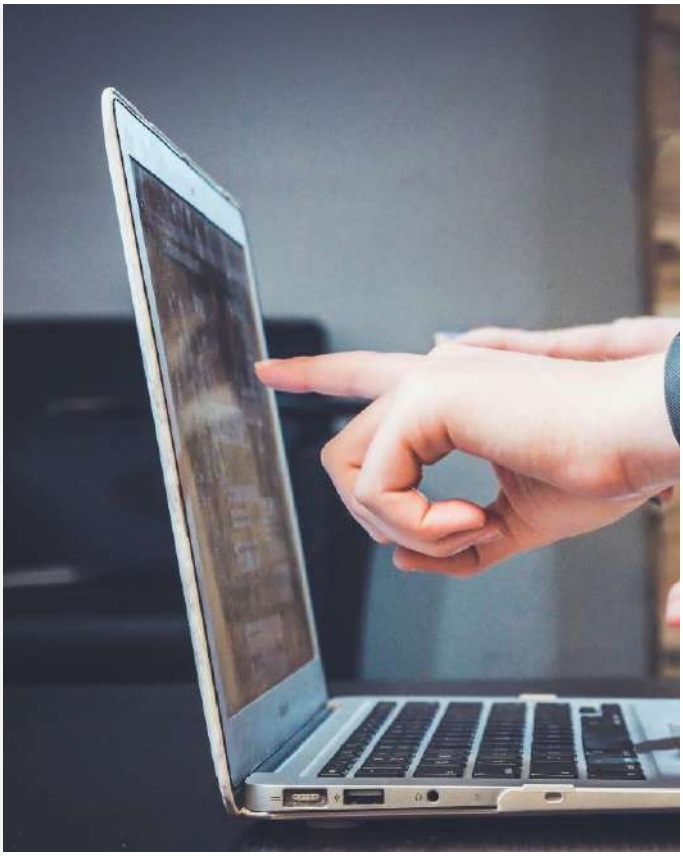
- Apprenticeship embedded training programs shall be encouraged in both formal and vocational skilling system in schools.

- Incremental learning - based NSQF aligned vocational courses to be embedded in the schools affiliated to the various boards, including Central Board of Secondary Education (CBSE), Council for the Indian School Certificate and State Secondary Boards/Councils.

- All formal and vocational training institutions to follow accreditation guidelines and should also be affiliated to an awarding body regulated under National Council of Vocational Training and education (NCVET).

4.2.7 Recognition of Prior Learning (RPL) in the AVGC sector

- There is a need to **promote Recognition of Prior Learning** in the sector. Recognition of Prior Learning is a key component of PMKVY Scheme and refers to an assessment process used to evaluate a person's existing skill sets, knowledge and experience gained either by formal, non-formal or informal learning. To **promote Recognition of Prior Learning, the certificates currently issued by MESC need to be broken down into credits & mapped to the credits of the UG programs** which can then be stored in the Students' Credit Bank.



4.2.8 Identifying, encouraging and skilling individuals, groups and cultural organisations engaged in performing, visual and literary arts etc.

- India is home to one of the world's largest collections of songs, music, dance, theatre, folk traditions, performing arts, rites and rituals, paintings and writings, known as the 'Intangible Cultural Heritage' (ICH) of humanity. In order to preserve these elements and promote Indian artisans, AVGC maybe looked as a medium to promote it globally. Therefore, Governments (both center & state) should offer a platform to identify, encourage and skill individuals, groups and cultural organizations engaged in performing, visual and literary arts etc.

4.2.9 Capacity Building of professionals working in the AVGC Sector for future readiness of the sector

- Officials from key government departments responsible for promoting AVGC at the National and State level may undergo a curated training programs for AVGC sector provided either by AVGC NCOE or MESC.

- To make the AVGC sector future ready, **a study for assessing the future skill and competency requirement by the industry** may be undertaken. Such a study may also undertake the task of identifying and defining multiple roles in the AVGC Ecosystem.

4.3 Education

4.3.1 Standardization of Education focused on AVGC sector

- It is proposed for Ministry of Information and Broadcasting to closely work with Ministry of Education in **drafting a holistic framework for AVGC education in India**. The framework should consider teaching methodologies, core areas of teaching, new subjects, mode of examination for creative fields etc. to ensure complete representation of the stakeholders in the AVGC ecosystem. An endeavour should also be made for **standardizing course curriculum** and delivery, establishing linkages with learning outcomes for AVGC and alignment with NSQF.

- To facilitate admissions into animation, visual effects, gaming, film making or any other career program in AVGC sector, **Media & Entertainment Creative Aptitude Test (MECAT) or similar tests may be considered/ administered**. Tests will be standardized to effectively measure the creativity, aptitude and readiness of a candidate seeking admission in programs running in the Media & Entertainment Sector. Tests will also be administered in multiple languages to facilitate its acceptance among all regions of the country. A **customized version of MECAT has already been launched in schools in the name of MECAT- Jr**. The same may be propagated widely to give students in school an opportunity to analyze their creative aptitude and skills at an early age.

- Ministry of Education may advise **NCERT to create books focusing on subjects relevant to AVGC**. Industry may also support schools in designing curriculum to introduce students to the sector at a young age.

- For standardization of AVGC education, there is a need of a **uniform nomenclature for degrees**. The Skill Sector Councils are also recommended to adopt this nomenclature and add to it for future needs. Ministry of Education may plan for transition of all existing AVGC education programs from all universities into the new nomenclatures and new structure, through a mandate, preferably by 2025. The recommended degrees include:

  - ✓ Bachelor/ PG in Experiential Arts (Gaming, XR etc)
  - ✓ Bachelor in Graphic Arts (Comics and Animation Design)
  - ✓ Bachelor in Cinematic Arts (Comics/Animation/VFX)
  - ✓ Bachelor of Creative Arts & Sciences
  - ✓ Bachelor in Visual Arts - Game Art Design
  - ✓ Bachelor in Visual Arts - Visual Effects
  - ✓ Bachelor in Visual Arts - Animation Art and Design
  - ✓ Bachelor of Science - Game Development
  - ✓ Bachelor in Visual Arts - AR-VR
  - ✓ Bachelor in Visual Arts - Digital Film Making

4.3.2 Promoting Creative Thinking in schools

- The **students at school level to be given exposure to subjects that help them sharpen their creative skills.** The Skills to be taught at Primary School level (5+3 as per National Education Policy) from KG to Grade 5, may include the following, Observation Skills, Understanding Moving Images, Understanding Visual Language, Color Theory, Intro to Art & Design, Intro to Performing Arts, Music awareness, Introduction to Creative thinking.

- Adequate exposure to be given to students at High School (3+4 as per NEP) from Grade 6 to Grade 12. The subject pool to include following courses, Foundational M&E learning, **Creative Thinking**, Local / Folk Art forms, Communication Education, Narrative Arts, Performing Arts, Foundational Learning in Media Ethics.

- Schools in consultation with Ministry of Education to permit **practical assessment pattern** instead of a written exam for certain subjects involving creativity.

- The schools to be encouraged to **establish a Media and Entertainment studio/ labs**, in addition to Computer Labs, within their premises to give students exposure to the industry. Adequate guidelines accounting for such provision maybe drafted at a later stage.

4.3.3 Promoting high quality and well-structured AVGC education across Under Graduation and Post-Graduation

- To ensure standardization of AVGC Curriculum structure, the **UG education in the sector to be a 4-yr program,** being offered in a full Choice-Based-Credits-System structure. Ministry of Education may **also draft guidelines on the concept of credit bank as has been outlined in the National Education Policy**. This will be beneficial for forming a mechanism to transfer credit of a 3-yr Diploma after 10th grade into UG programs for students seeking admission to degree courses. Central and Deemed universities to provide high quality vocational education by awarding Diploma, Advanced Diploma and Degree in the relevant field of M&E, focusing on AVGC sector, also to students who are getting trained in SSC's Affiliated Training Centers.

- **Government of India to assist in development of faculty for the gaming sector**. Further, to develop certain skills which are currently not available in the Indian gaming ecosystem, Indian entities maybe encouraged to invite industry experts from abroad which may be appropriately incentivized.

- To encourage cross-sectoral skilling and learning, AVGC courses may be offered as electives and formulated as per the credit framework.

- To promote on AVGC in Universities and Colleges, the following initiatives may be undertaken:
  - ✓ Formation of a Department of Creative Arts & Sciences (CAS)
  - ✓ Subjects such as 2D Animation, 3D Animation, Interdisciplinary Animation, Comics, Game Design, Game Art, Immersive content, Virtual Production & Previsualization, etc. to be introduced as part of AVGC Curriculum.
  - ✓ Government of India may also deliberate upon approving Hybrid degree programs (theory online, practical on-campus) under the 40% online education as approved in the NEP.
  - ✓ Final written exams may not be mandatory for all subjects. For creative subjects it is recommended, that Final evaluation for learning to be application-based, based on what the instructor(s) choose, through a jury evaluation/ making of content in parameters that are as close to real-world situations as possible.

- For **Postgraduate/ Masters Learning**, the following interventions may be undertaken:

  - ✓ Individual Masters programs (2-yrs) in each specific area such as 2D Animation, 3D Animation, stop motion Animation, Comics, Game Design, Game Art, Immersive Content to be conceptualized. The curriculum and delivery of such programs to be at par with international standards.
  - ✓ Masters' programs to lay additional focus on IP creation & Entrepreneurship and a higher level of theory / pedagogical approach to the subject at hand.
  - ✓ Ministry of Education to deliberate upon format for conducting examination in creative subjects. For creative subjects, written exams may not be mandatory. Instead, it is recommended that for creative subjects, the Final evaluation for learning may be application-based, basis what the instructor(s) choose, through a jury evaluation / making of content in parameters that are as close to real-world situations as possible.
  - ✓ The AVGC Masters curriculum to consider the following subjects- Basic Story, Narrative & Filmmaking skills, uniquely Indian narrative traditions, Indian Traditional & Folk Art related General Education.
  - ✓ Institutions to endeavor to create an additional specialization in Instructional Design to enable Animation & Comics professionals to get into creating Academic Content.
  - ✓ A Train the Trainer Diploma program can be run by all institutions running master's programs. Such a program maybe made attractive for students through various incentives, such as tie-ups with foreign universities.

- Ministry of Education to encourage delivery of apprenticeship embedded degree programs to offer hands-on training to candidates making them industry ready.

- With the recognition of specializations in AVGC at post-graduate and doctoral level, a mechanism for scholarships and grants for research in the AVGC sector may be institutionalized. A mechanism for easy access to funding and support from the industry to research scholars in the gaming sector may also be facilitated for talented students and researchers. Dedicated fund for scholarships to meritorious students enrolled in the AVGC courses.

4.3.4 Developing course content and delivering courses at par with International Standards

Curriculum to be developed and upgraded as per the international standards on periodic basis. Credit banking and integration as per ABC (Academic Bank of Credits) to be established. A study of existing AVGC courses in countries such as Canada, Germany, UK, South Korea & Australia maybe undertaken to align curriculum and delivery with international standards in AVGC.

4.4 Increasing Access to Technology

4.4.1 IP and Patent Related

- Awareness among gaming companies regarding the **IP ecosystem** may be increased:

  - ✓ A single window portal for all information, programs, and guidance in relation to IPR may be established.
  - ✓ Encourage/ Enable gaming start-ups to file applications for patents, designs, and trademarks under Start-Ups Intellectual Property Protection (SIPP) scheme.
  - ✓ State-wide awareness Workshops may be organized on IPR procedures and methodologies specifically for gaming in collaboration with academic institutions, industry bodies, etc.

- A **Model Intellectual Property Licensing Agreements (IPLAs)** may be developed by the AVGC promotion nodal agency for the AVGC sector to promote collaboration and standardization and unlock the industry potential.

- **Collective licensing agreements** to be promoted among the existing players to create individual intellectual property and prevent IP rights infringements.

- To promote technology innovation and creation of Intellectual Property, Ministry of Electronics and Information Technology has set up an entity called '**MeitY Start-up Hub' (MSH)** under its aegis. MSH may also focus on AVGC sector

- It is also recommended that Indian AVGC companies should initiate conversations with **Global AVGC companies to offer their servers for small Indian developers** for creating their own games, thereby generating revenue for the company in exchange for offering patents and protection against legal disputes.

- A platform for **pro bono legal and technical consultation on IP protection for developers and designers**, like the Patent Facilitation Program under the Department of Science & Technology may be established in coordination with the industry-led incubators and accelerators.

- **Incubation fund** to be provisioned for intellectual property (IP) and content development for projects. It may be funded in aggregation or partnership with a university or a group of investors, to promote the creation of new IPs.

- Institutions to constitute mechanisms for students to seek Incubation funding / IP development funding within the parameters of their master's Programs.

- Financial support through institutional means to MSME developers and designers in relation to filing IPR claims.

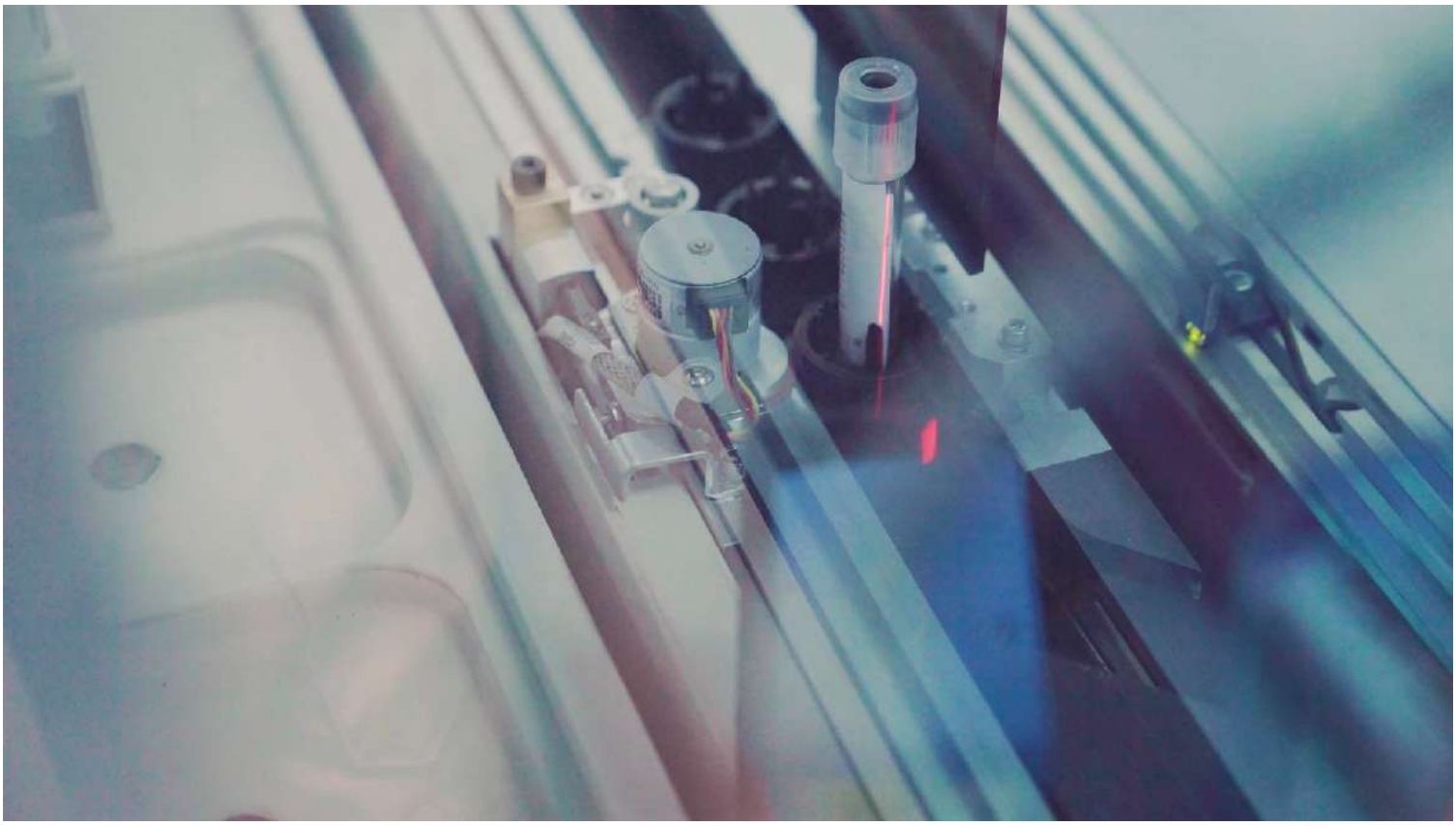
4.4.2 R&D and Innovation

- **Technology Incubation and Development of Entrepreneurs (TIDE)** scheme may focus on AVGC segment to ensure, transformation of research output to practical usage, promoting product-oriented research and development in institutions of higher learning, strengthening their Technology Incubation Centres, encouraging, and accelerating development of indigenous products and packages, bridging the gap between R&D and commercial usage of products.

- **R&D grant scheme** for industry-led consortiums comprising lead industry partners, academic institutions, and startups, which may be funded through the National Research Foundation set up under The Prime Minister's Science, Technology, and Innovation Advisory Council (PM-STIAC), education being delivered in all the vernacular language.

- Development of Public-Private Partnership (PPP) models or co-innovation models for research into new technologies

- A concerted effort is required to boost the number of **AVGC and design specific R&D labs** at various Institutes of Eminence in the country like IITs, NITs, IISc, and Institutes of Eminence. These labs may be run in partnership with experts from the AVGC industry.



4.4.3 Technology Access

- **Democratizing technology through use of subscription models:** Companies offering AVGC technology products, including software, may be requested to move from a traditional license and maintenance model to a subscription-based model. The companies may also be advised to make it easy for customers to purchase with try-before-you-buy programs and some add-on capabilities. The subscription model is envisaged to provide better entry-level pricing and the ability to add features as customers mature and gain value from the initial experience. This will lead to expensive software not becoming a financial barrier to adoption of new AVGC-XR technology.

- **Providing incentives for development of software and hardware designed especially for Indian market and price point**: India's population has moved along an exponential technology curve, seeing development across different buckets of technology, including software development. The AVGC-XR companies will therefore be encouraged to develop their software locally to meet the needs of India AVGC-XR industry. Government of India should also determine a Production Linked Incentive (PLI) scheme to attract AVGC-XR sector related hardware manufacturers to the country. Government of India, in collaboration with global players can develop an **open-source stack** particularly for game development.

- **Government of India should also take adequate steps to curb piracy of software in the AVGC-XR sector**. This should be inclusive of raising awareness among Indian public on Intellectual Property Rights (IPRs) and threats posed by pirated software.

- A **comprehensive plan to fund Higher Education Institutions to set up labs to evangelize new and emerging technologies** into academics as well as industry practices. Adequate measures may be taken to minimize the cost of acquisition of software. Further, the equipment grants from international technology companies to educational institutions for educational purposes may be exempted from Customs duty or the duration of stay of the equipment brought into the country for educational demo purposes on a temporary basis under ATA Carnet rules of Customs be extended from 3 months to 3 years for educational institutes

- There is a need to **encourage industry to establish incubators and accelerators for early stage-startups in different cities**. These incubators and accelerators may be incentivized through mechanisms such as incentivizing FDIs, tax incentives, and other institutional support for establishing labs for research and development, among others.

- **Facilitate financial support for technology acquisition**. This could be done thorough some low-rate acquisition contracts, creation of dedicated funds etc.

4.5 Creating Financial Viability

- In the past the Government of India has already acknowledged Audio Visual services as one of the 12 Champion Service Sectors in India.

- Measures required for **promotion of the Indian AVGC industry may be clubbed under an umbrella initiative/ scheme namely "India AVGC Mission, supported by a holistic financial package**. The umbrella initiative may be designed in coordination with the Ministry of Finance, and other Ministries such as Ministry of Electronics and Information Technology (MeitY), Ministry of Education (MoE), Ministry of Skill Development and Entrepreneurship (MSDE), etc.), and the industry.

- Given the significant focus on content, ie. Intangible assets that the AVGC companies create from revenue generation and IP perspectives, it is recommended that Government of India may evaluate categorization of IPs that have a monetization track record (substantiated by signed contracts) as intangible assets that can be offered to banks as a collateral.

- **State level scholarship funds / CSR programs to be set up through State governments.** The funds set up may be used to carry out the following activities:
  - ✓ Giving Scholarships to meritorious students at the UG / PG level.
  - ✓ Setting up Faculty Chairs in the Department of Arts & Sciences on a 3-yr basis.
  - ✓ Funding Folk Artists to bring in trainees for continued expansion of their art, and for integrating technology into the art.
  - ✓ Integration of Tier 2 and Tier 3 cities, tribal areas into mainstream AVGC industry.
  - ✓ Funding Higher Education Institutions to set up labs to evangelize new / emerging technologies into academics as well as industry practices.
  - ✓ Easing Infrastructure & software cost for Education (Mobile phones, computers, VR, consoles, LED walls, software)
  - ✓ Setting up of virtual labs (Skill e-Labs) for skilling people in rural areas, tribal areas, and aspirational districts.
  - ✓ Setting up Incubation labs for development of IP.

- **Funds towards development & continuous upgradation of curriculum & content to be provisioned under the National AVGC policy.** Funds to be provisioned towards development of e-content, conducting workshops, events and expositions inviting international experts and trainers.

- A **one-time special AVGC based skilling fund may be provisioned as a special incentive** for people and businesses to donate to the fund, which will then be eligible for CSR contributions and 80G certification.

- **Government of India may commission a 'Game Development Fund' along with Industry to promote and educate consumers/players on responsible gaming**. Wherein the companies contribute 1% of their annual net profits to promote and educate stakeholders.

- Government of India **may mandate banks to provide educational loans with no collateral or margin money to students from low-income-families** for studying UG/PG programs in AVGC.

- To encourage entrepreneurship in the **AVGC sector and enable access to more funds, Government of India may undertake the following initiatives**:
  - ✓ Easing availability of Micro Loans for AVGC sector.
  - ✓ **Schemes** applicable to other sectors may also be made applicable to the AVGC sector.

- Under International agreements, **such as co-production treaties and other Trade agreements, AVGC should be considered as a priority sector** to gain access to focused incentives. This will also give domestic AVGC companies an opportunity to operate competitively in international markets.

- **Taxation related incentives such as tax breaks, tax holidays, etc. may be devised to boost local IP production, R&D, and investment** in the AVGC industry. There is also a requirement to rationalize various taxes (including GST) for Animation, Visual Effects, Gaming and Comics sectors to reduce the cost to users, enhance financial viability and make the sectors more competitive. It may be noted, that for the gaming sector, Group of Ministers (GoM) under the GST Council is already deliberating on the matter.

- Attracting foreign gaming companies for co-production in and relocation to India:
  - ✓ Additional/Special Tax breaks up to 3-5 years for global companies willing to locate in India.
  - ✓ Incentives to foreign companies for outsourcing of work to India, or employment of Indian game developers

4.6 Promoting high-quality Content

4.6.1 Launch of a 'Create in India' initiative with exclusive focus on content creation

- Government of India may also evaluate launch of a 'Create in India' initiative to give the needed impetus to content creation in India. Some key focus areas of 'Create in India' initiative will be as follows:

  - ✓ Creation of high-quality content in vernacular languages for promotion of Indian culture, heritage, and folk arts globally.
  - ✓ Promotion of international co-productions to help Indian Films and AVGC services get global audiences.
  - ✓ Creation of global content in the country, making India a Global hub for the AVGC sector.
  - ✓ Creation and protection of Intellectual Property in the AVGC-XR sector.
  - ✓ Engaging AVGC-XR software/ product developing companies to reduce cost of acquisition of software.

4.6.2 Creating global-ready Content

- Entertainment and Gaming Industry producers to be encouraged to transform certain successful films (box office/ critically acclaimed/ popular character etc.) into games through a dedicated mechanism of cooperation between the entertainment and gaming industry.
- Transparent mechanisms for knowledge sharing may be established through collaboration among industry associations in the film and entertainment industry, and the gaming industry.

  - ✓ **Global studios may be incentivized** to tap into stories from India for gaming content and local IPs.
  - ✓ The existing **co-production treaties** with nations to be amended to also include AVGC sector.

4.6.3 Promoting Indian Content

- To promote creation and consumption of indigenous animation content, giving an opportunity to domestic players to compete with international players in the domestic as well as international markets, there should also be provisions for **mandating content reservation** for local animation content.
- In cooperation with the Ministry of Culture, digital and authentic resources of Indian literature may be made available. Similar approach may also be adopted in respect of historical and folklore-based narratives.
- Mechanisms for promotion of indigenous comics, movies and animation ecosystems may be established to build a strong pipeline of ideas for gaming
- States may also consider reimbursing a portion of investment made by companies to create content based on Indian themes.

The visual effects for Tenet - an Oscar-winning movie for best VFX was done in India.

4.6.4 Promoting children specific content in India

- With a large children's population and high television penetration, there is an opportunity for launch of a channel focused on content delivery for children to educate them and raise their awareness on rich culture, history and traditions of the country.
- It is therefore recommended for Government of India to **create a DD Kids channel through the Public Broadcaster**.
- Private Broadcasters will also be encouraged to take up the activity of developing children only content.

4.7 Diversity, Equity and Inclusion

- The National AVGC Policy and the policies being developed by States should focus on giving equal weightage to skilling, re-skilling, and upskilling of people across gender, economic background and Geography.

- A framework to be developed **for identification of model districts for establishing AVGC industry.** The framework to also comprise, minimum identification criteria for choosing a district.

- The following steps maybe undertaken to promote AVGC as a sector in Tier 2 and Tier 3 cities:

  - ✓ Conceptualizing dedicated centers with hi-tech infra, including facilities such as Digital post-production labs, incubation centers and virtual labs.

  - ✓ Providing AVGC oriented education in vernacular language

  - ✓ **Identification of partners to set up incubation facilities for start-ups** working in domains such as virtual reality, digital compression, gamification of educational content and other such niche areas in each state, especially focusing on AVGC hubs.

  - ✓ Formation of **AVGC centric ITIs & polytechnic colleges which may be used by academia and industry for optimum use of infrastructure and development of regional industry.** Further, existing ITIs may also be strengthened for their AVGC related capabilities. AVGC centric ITIs may also be enabled with Job oriented Diploma & Certificate programs for AVGC segment (course like Prep (Roto, Paint), Asset Development, Compositor, graphic designer etc.). Existing infrastructure in multiple shifts to be used for training and production.

- Adequate policies to be drafted by states to encourage AVGC companies to establish offices in Tier 2 and Tier 3 Cities with necessary incentives.

- Through effective **PPP models, differentiated zones, especially in Tier 2 and Tier 3 cities with focus on AVGC to be created**. This will promote Industry's access to technology, R&D facilities, Incubation Centers. Such an initiative will also ensure country wide growth and not one that is concentrated in a few regions.

- Tier 2 / 3 institutions can apply for support / scholarship / state funding to set up infrastructure and run programs in coordination with established universities / institutions. State Governments to give hand holding support to such an entity.

- **Twinning programs between towns & cities** across educational institutions to be established.

- To facilitate integration of **Tier 2 and 3 Cities in the AVGC industry, the stakeholders may be adequately incentivized**. A similar model, like the one existing in medical field may be adopted. i.e., discounts / fee waivers in PG education be given to teachers if they teach in a Tier 2/3 town / city or in a school for 2-3 years after completing undergraduate education.

- Carrying out a **survey in collaboration with the local industry to recognize the clusters with AVGC talent in rural or tier 2 & 3 areas**, for focused interventions.

- Identification of rural talent to be made **through various existing programs as well as through the teachers.** Some of the current Talent Identification models include:

  ✓ Karnataka Arts School model - digital art centres

  ✓ National Innovation Foundation (Shodh yatra) - talent scouting

  ✓ Smart India Hackathon

- Adequate linkages **between skilling demand and supply should be established across Tier 2 and 3 cities**. For the same purpose, a one-time assessment of skill supply in these cities can be ascertained.

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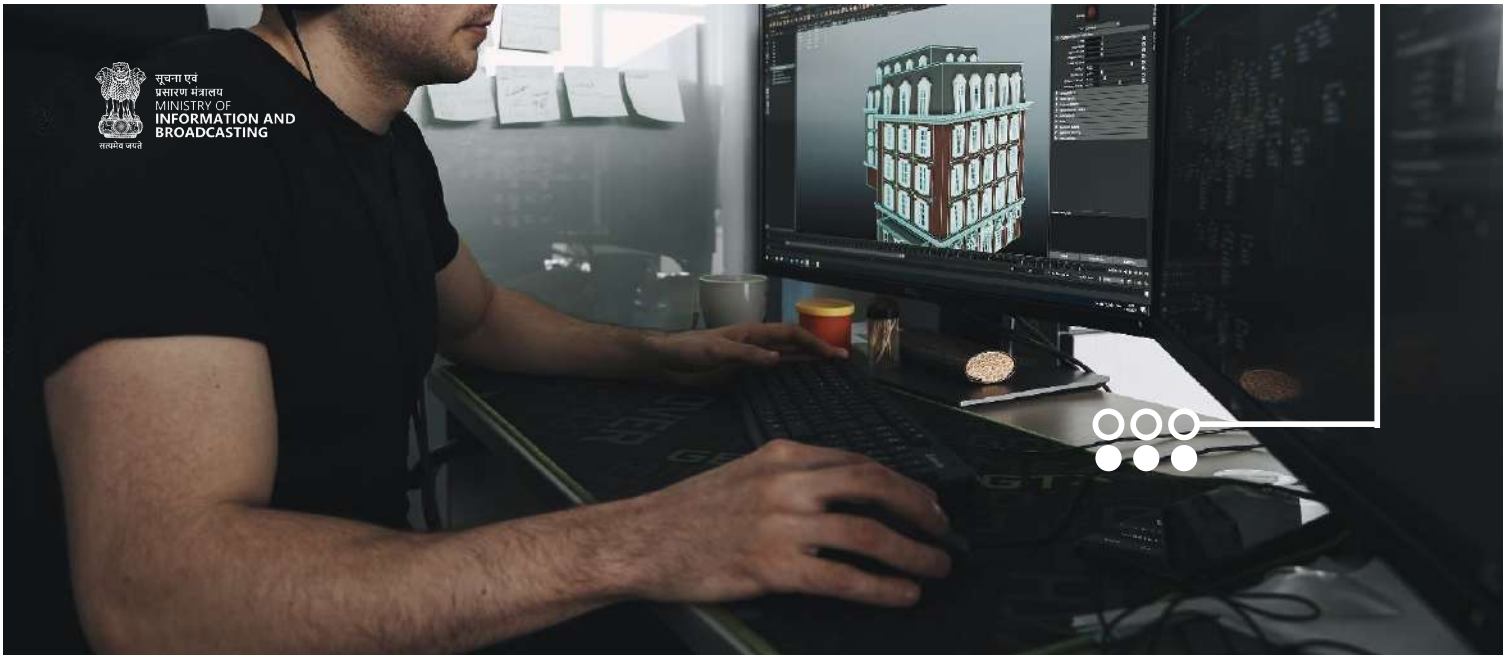
MINISTRY OF INFORMATION AND BROADCASTING

Chapter 5

Cross Cutting Intervention Themes for AVGC Sector



Certain areas emerged as cross cutting themes among recommendations received from all Sub-Task Forces. These themes are as follows:

Development of progressive policies, including a National AVGC Policy, to define the growth trajectory of AVGC sector in India

The AVGC sector has witnessed unprecedented growth rate in the recent times, with the global market size of the AVGC sector estimated at around $800 billion. [50] India has also witnessed tremendous growth in this sector. It is envisioned that with the right set of interventions, India has the potential to capture 5% (~$40 billion) of the global market share by the year 2025, with an annual growth of around 25-30% and create over 1,60,000 new jobs annually. There is therefore a need for a dynamic National AVGC policy which will serve as a guidebook, focusing on the growth of the AVGC Sector within the country.

Setting up of a National Center of Excellence for AVGC in collaboration with Industry and Academia

Dynamic nature of the AVGC industry has led to a need for establishing an Industry led body, to guide policies for the growth of this sector, establish frameworks for AVGC education in India, actively collaborate with industry and international AVGC institutes, and enhance the global positioning of the Indian AVGC industry. It has been recommended to establish a National Center of Excellence for the AVGC sector. The NCOE has been envisioned to deliver mandate, across Skilling, Education, Industry Development and Research and Innovation for the AVGC sector. Being the first of its kind institution in the AVGC sector, the NCoE will serve as a reference point for the AVGC industry, across areas such as AVGC education, skilling, research, and development. The NCOE will also be useful in providing policy advisory services, industry consulting services, focused research, and development among other activities. A National Centre of Excellence (NCOE) for AVGC in India shall serve as the driver for AVGC promotion and act as a mentoring institution for the industry to guide the policies for growth of this sector, establish standards for AVGC education in India, actively collaborate with industry and international AVGC institutes, and enhance the global positioning of the Indian AVGC industry.

[50] https://www.businesstoday.in/opinion/columns/story/the-avgc-sector-how-a-holistic-vision-here-can-make-india-a-global-content-leader-336784-2022-06-08

Development of Center of Excellence across the country in collaboration with State Governments

It has been recommended to set up Regional Centers of Excellence to provide increased access to infrastructure to the stakeholders of the AVGC industry. This will give an opportunity to the sector to ensure country wide growth and not one that is concentrated in a few regions. This may be developed in collaboration with State Governments and can function as the spokes of the National Center of Excellence.

Representation of Tier 2 and Tier 3 towns and cities in the AVGC landscape of the country

To facilitate integration of Tier 2 and Tier 3 towns and Cities in the AVGC industry, the stakeholders may be adequately incentivized. AVGC specific Institutions running in these cities and towns can apply for support / scholarship / state funding to set up infrastructure and run programs in coordination with established universities / institutions. It has also been recommended for State Governments to give hand holding support to such institutions. Further, twinning programs between towns & cities across educational institutions to be established. Adequate impetus may also be given to identification of rural talent through various existing programs as well as through the teachers.

Overall increased access to AVGC technology to all stakeholders of the sector

There is a need to establish infrastructure to ensure increased access to technology for the stakeholders of the AVGC sector. Assistance is required in setting up institutions equipped with latest state of the art infrastructure such as digital post-production AVGC labs, post-production technologies such as motion capture, 2D & 3D animation, and high-speed rendering along with state-of-the-art hardware and software that companies can use on pay-per-use basis. Adequate steps may also be taken to reduce the cost of acquisition of technology.

Standardization and alignment to international standards in skilling, education, and content delivery for AVGC sector

Policies for standardization of curriculum and delivery mechanisms maybe adopted by the industry. The Government in collaboration with the AVGC industry and academia may establish frameworks for AVGC education in India, actively collaborate with industry and international AVGC institutes, and enhance the global positioning of the Indian AVGC sector. Standardization of nomenclature for degrees may also be taken up on priority by the Government of India.

AVGC sector, a medium to promote Indian culture and heritage

With focus on Indian heritage and culture, the AVGC sector has potential to have a greater impact on the society – fostering creativity at grassroots level and being a medium to communicate Indian values to the next generation. The Animation, Comics and Gaming segments have tremendous potential to present Indian mythological content, culture, values and traditions to children and youth of India.

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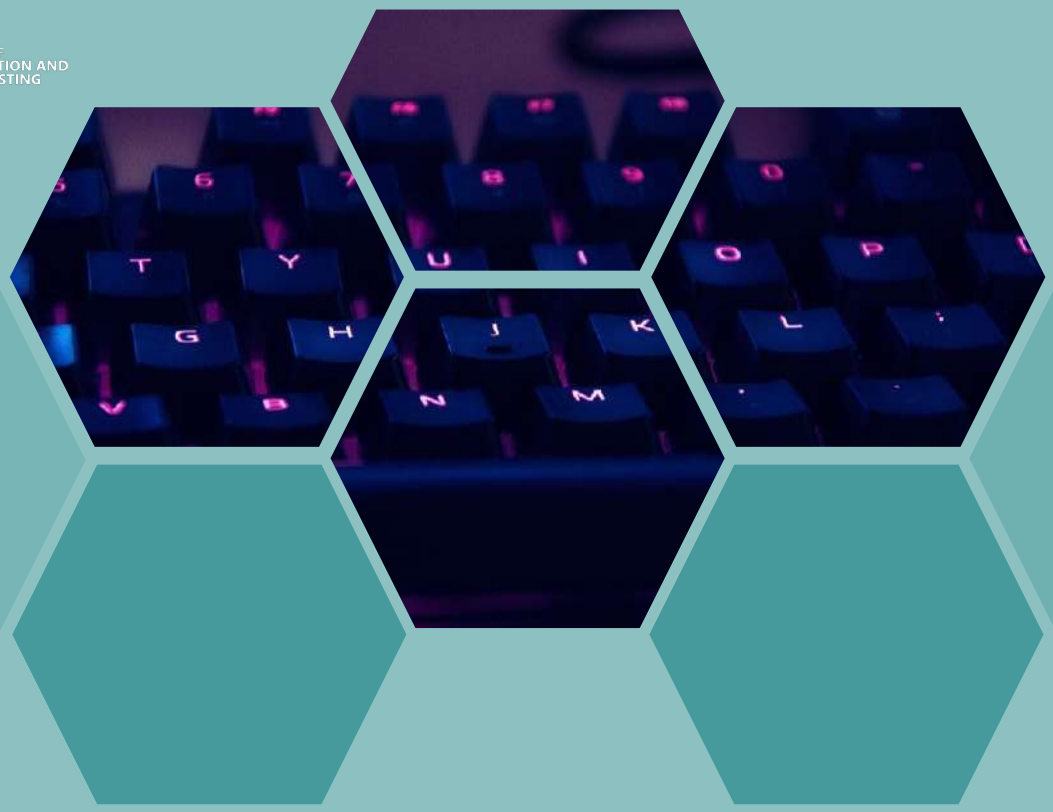

Annexures

Annexure A

AVGC Promotion Task Force

.FNo. M-35020/5/2022 – DO (FI)
GOVERNMENT OF INDIA
MINISTRY OF INFORMATION & BROADCASTING
"A' Wing Shastri Bhawan, New Delhi-110001.

Dated: 08.04.2022

OFFICE ORDER

In pursuance of the announcement made in the Union Budget 2022-23, it has been decided to constitute an Animation, Visual Effects, Gaming and Comics (AVGC) Promotion Task Force to promote the AVGC sector in the country under the aegis of Ministry of Information and Broadcasting. The composition of the AVGC Promotion Task Force is as under:-

1.	Secretary, Ministry of Information and Broadcasting	**Chairperson**
2.	Secretary, Ministry of Skill Development and Entrepreneurship	Member
3.	Secretary, Ministry of Education, Department of Higher Education	Member
4.	Secretary, Ministry of Electronics and Information Technology	Member
5.	Secretary, Department for Promotion of Industry and Internal Trade	Member
6.	Additional Secretary, Ministry of Information and Broadcasting	Member
7.	Administrative Secretary in charge of AVGC Policy, Government of Karnataka, Maharashtra and Telangana	Member
8.	Chairperson, All India Council of Technical Education.	Member
9.	Director, National Council of Educational Research and Training	Member
10	Chief Executive Officer, Media & Entertainment Skills Council	Member
11.	Sh. Biren Ghosh, Country Head, Technicolor India	Member
12.	Sh. Ashish Kulkarni, Founder, Punaryug Artvision Pvt. Ltd.	Member
13.	Sh. Jesh Krishna Murthy, Founder and CEO Anibrain	Member
14.	Sh. Keitan Yadav, COO and VFX Producer, Redchillies VFX	Member
15.	Sh. Chaitanya Chinchlikar, Chief Technology Officer, Whistling Woods International	Member
16.	Sh. Kishore Kichili, Sr. Vice President and Country Head, Zynga India	Member
17.	Sh. Neeraj Roy, Managing Director and CEO of Hungama Digital Media Entertainment	Member
18.	CII nominee from AVGC sector	Member
19.	FICCI nominee from AVGC sector	Member
20.	Joint Secretary (Films), Ministry of Information and Broadcasting	Member Secretary

2. The Terms of Reference of the AVGC Promotion Task Force shall be:-

(i) Recommend approaches for boosting employment and job creation opportunities for youth in this sector in urban and rural areas.

(ii) Facilitate development of progressive policies, including a national AVGC Policy, that will promote growth of the sector.

(iii) Give recommendations for a national curriculum framework for Graduation, Post-graduation and Doctoral courses in AVGC related sectors.

(iv) Facilitate skilling programmes and initiatives in collaboration with academic institutions, vocational training centres & Industry.

(v) Recommend measures for uniformity and alignment to international best practices in skilling, education and content delivery.

(vi) Provide recommendations on developing Centre-State synergies in AVGC sector

(vii) Promote creation of robust infrastructure in the form of Regional AVGC hubs across the nation.

(viii) Facilitate concerted promotion and market development activities to extend global reach of Indian AVGC Industry and also enhance the export potential of the sector.

(ix) Support industry in carrying out Co-Innovation & Research activities, helping India create its IP depth in AVGC sector.

(x) Recommend incentives to attract FDI in AVGC sector to make India a favourable destination for ease of doing business.

(xi) Any other matter relating to AVGC with the permission of the Chairman of the Task Force.

3.**Term of Members on the AVGC Promotion Task Force**: The term of official members on the AVGC Task Force shall be coterminus with their posting. The non-official members shall be nominated for a period of two years, extendable by Ministry of Information and Broadcasting.

4. **Secretarial assistance**: Secretarial assistance to the AVGC Promotion Task Force shall be provided by the Ministry of Information and Broadcasting, Government of India.

5. **Power to Co-opt additional members**: The AVGC Promotion Task Force shall have powers to co-opt additional members/special invitees as and when need arises. Further, the AVGC Promotion Task Force shall have the power to create time-bound and target sub-task forces with focus on specific matters, such as, Education, Skilling, Innovation, Job Creation, sub-sectors, etc.

6. **Frequency of Meetings**: The AVGC Promotion Task Force meetings shall be held at least once every quarter.

7. **Timelines for submission of Report**: The AVGC Promotion Task Force shall submit its first action plan including key milestones to the Ministry of Information and Broadcasting within 90 days from the date of issue of order.

8. The Committee Members will be entitled to travelling expenses, local transport and sitting fees in connection with the meetings as per extant rules.

9. This issues with the approval of the competent authority.

S Vijay Gopal

(**S Vijay Gopal**)
Under Secretary to the Government of India
Tel.: 011-2338 2487

Copy to:-

1. All members of the Task Force.
2. PPS to HMIB
3. PPS to HMOSIB
4. PPS to Secretary (I&B)/ PPS to AS&FA/PPS to AS/ PPS to JS(P&A)/ PPS to JS (B)/PPS to JS(EW)/ Dir(Films)
5. CEO, NITI Aayog, Parliament Street, New Delhi.
6. Under Secretary (Coordination), Department of Economic Affairs, Ministry of Finance.
7. PAO, Main Secretariat, M/o I&B

S Vijay Gopal

(**S Vijay Gopal**)
Under Secretary to the Government of India

No. M-35020/5/2022-DO(FI)
Government of India
Ministry of Information & Broadcasting
A Wing, Shastri Bhawan, New Delhi

Dated 1st June, 2022

OFFICE ORDER No. 1/2022

The first meeting of newly announced AVGC Promotion Task Force was held on 4th May 2022 in Ministry of Information and Broadcasting. In the meeting, it was decided that four Sub-Task Forces shall be constituted namely, for Education, Skilling, Gaming and Industry & Policy. These sub-groups will work towards devising strategies of growth through targeted interventions in their respective areas. The recommendations from the Sub-Task Forces will be in areas of policy formulation, capacity building, infrastructure development, technological access, research and development, creating local IPs, enhancing export potential, etc. Further, all recommendations shall adhere to the principles of inclusion, equity, diversity, and sustainability.

The composition of the Sub Task Force on Industry & Policy is as under: -

Sl.No.	Name	Designation &Organization	Role
1	Apurva Chandra	Secretary, Ministry of Information & Broadcasting	Chairperson
2	Neerja Sekhar	Additional Secretary, Ministry of Information & Broadcasting	Member
3	Manmeet Nanda	Joint Secretary, DPIIT	Member
4	Darpan Jain	Joint Secretary, Department of Commerce	Member
5	State Representative-Maharashtra	Administrative Secretary, Government of Maharashtra	Member
6	State Representative-Karnataka	Administrative Secretary, Government of Karnataka	Member
7	State Representative-Telangana	Administrative Secretary, Government of Telangana	Member
8	State Representative- UP	Administrative Secretary, Government of UP	Member
9	Ashish Kulkarni	Founder, Punaryug Artvision Pvt Ltd.	Member
10	Biren Ghose	Country Head – Technicolor India	Member
11	Leena Jaisani	Assistant Secretary General, FICCI	Member

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6. **Frequency of meetings:** The Sub Task Force should convene as required to adhere to the timelines of the AVGC Promotion Task Force.

7. **Timelines for submission of reports:** The Sub Task Force shall submit the final action plan to the Ministry before 31st July 2022.

8. The Sub Task Force Members will be entitled to travelling expenses, local transport and sitting fees in connection with the meetings as per extant rules.

9. This issues with the approval of the competent authority.

(S Vijay Gopal)
Under Secretary to the Government of India
Tel.: 011-2338 2487

Copy to:-

1. All members of the Sub Task Force on Industry & Policy.
2. PPS to HMIB
3. PPS to HMOSIB
4. PPS to Secretary (I&B)/ PPS to AS&FA/PPS to AS/ PPS to JS(P&A)/ PPS to JS (B)/PPS to JS(EW)/ Dir(Films)
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7. PAO, Main Secretariat, M/o I&B

(S Vijay Gopal)
Under Secretary to the Government of India

3

No. M-35020/5/2022-DO(FI)
Government of India
Ministry of Information & Broadcasting
A Wing, Shastri Bhawan, New Delhi

Dated 1st June, 2022

OFFICE ORDER No. 2/2022

The first meeting of newly announced AVGC Promotion Task Force was held on 4th May 2022 in Ministry of Information and Broadcasting. In the meeting, it was decided that four Sub-Task Forces shall be constituted namely, for Education, Skilling, Gaming and Industry & Policy. These sub-groups will work towards devising strategies of growth through targeted interventions in their respective areas. The recommendations from the Sub-Task Forces will be in areas of policy formulation, capacity building, infrastructure development, technological access, research and development, creating local IPs, enhancing export potential, etc. Further, all recommendations shall adhere to the principles of inclusion, equity, diversity, and sustainability.

The composition of the Sub Task Force on skill development is as under:

S.No.	Name	Designation & Organization	Role
1.	Rajesh Aggarwal	Secretary, MoSDE	Chairperson
2.	Atul Kumar Tiwari	Special Secretary & DG, Directorate General of Training	Member
3.	Ashish Kulkarni	Founder Punaryug Artvision Pvt. Ltd.	Member
4.	Ajjay Parge	Founder Director, Digital Art VRe	Member
5.	Anuj Kacker	Wholetime Director, Aptech	Member
6.	Keitan Yadav	COO - VFX Producer, Redchillies.vfx	Member
7.	Prajay Kamath	Co-Founder & Tech Advisor, AiSolve	Member
8.	Rajesh Turakhia	Founder & Director, Frameboxx	Member
9.	Vikas Kumar	Founder & CEO, Digitoonz	Member
9.	Sasikumar Raman	Director, Toonz Animation	Member
10.	Sathish Narayanan	Founder Director & CEO, Design Media & Entertainment Solution Pvt. Ltd.	Member
11.	Shalini S Sharma	Principal, M&E, CII	Member
12.	Srikant Sinha	CEO, Telangana Animation Skills	Member
13.	Manvendra Shukul	CEO, Lakshya Digital	Member

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14	Anil Kumar	Director, Curriculum Development, DGT, MSDE	Member
15	- (to be invited by the Convenor of the Sub Task Force)	Representative from PSSCIVE, Bhopal	Member
16	Mohit Soni	CEO, Media & Entertainment Skill Council	Member-Convenor

2. The terms of reference of the Sub Task Force on Skilling for Promotion of Animation, Visual-effects, Gaming and Comics (AVGC) Sector in India are as under:

i. Recommend an approach for boosting skill development and employment opportunities for youth in this sector in urban and rural areas.

ii. Recommend measures to enable uniformity and alignment of Indian courses to international standards in AVGC skilling and education.

iii. Suggest course curriculum for short and long term NSQF-aligned AVGC courses to be introduced at skilling and educational institutions.

iv. Identify CSR collaboration routes for skilling in AVGC sector.

v. Engage with stakeholders from Media and Entertainment sector including educational institutions and those operating in the vocational education ecosystem.

vi. Introduce and develop a strong and robust Training of Trainers (ToTs) (including faculty and teachers) mode in collaboration with industry for job roles in AVGC sector.

vii. Any other matter relating to AVGC skilling ecosystem with permission of the Chairperson of the Sub Task Force.

3. AVGC Cell in the Ministry of Information and Broadcasting may provide necessary support for functioning of the Sub Task Force.

4. The Sub Task Force may consult experts from academia and industry to realize its mandate during its functioning.

5. **Term of members of the Sub Task Force:** The members shall be nominated for such period as decided by the AVGC Promotion Task Force.

6. **Frequency of meetings:** The Sub Task Force should convene as required to adhere to the timelines of the AVGC Promotion Task Force.

2

7. **Timelines for submission of reports:** The Sub Task Force shall submit the final action plan to the Ministry before 31st July 2022.

8. The Sub Task Force Members will be entitled to travelling expenses, local transport and sitting fees in connection with the meetings as per extant rules.

9. This issues with the approval of the competent authority.

(**S Vijay Gopal**)
Under Secretary to the Government of India
Tel.: 011-2338 2487

Copy to:-

1. All members of the Sub Task Force on skill development.
2. PPS to HMIB
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5. CEO, NITI Aayog, Parliament Street, New Delhi.
6. Under Secretary (Coordination), Department of Economic Affairs, Ministry of Finance.
7. PAO, Main Secretariat, M/o I&B

(**S Vijay Gopal**)
Under Secretary to the Government of India

3

No. M-35020/5/2022-DO(FI)
Government of India
Ministry of Information & Broadcasting
A Wing, Shastri Bhawan, New Delhi

Dated 1st June, 2022

OFFICE ORDER No. 3/2022

The first meeting of newly announced AVGC Promotion Task Force was held on 4th May 2022 in Ministry of Information and Broadcasting. In the meeting, it was decided that four Sub-Task Forces shall be constituted namely, for Education, Skilling, Gaming and Industry & Policy. These sub-groups will work towards devising strategies of growth through targeted interventions in their respective areas. The recommendations from the Sub-Task Forces will be in areas of policy formulation, capacity building, infrastructure development, technological access, research and development, creating local IPs, enhancing export potential, etc. Further, all recommendations shall adhere to the principles of inclusion, equity, diversity, and sustainability.

The composition of the Sub Task Force on Education is as under: -

Sno.	Name	Designation & Organization	Role
1.	Anil Sahasrabudhe	Chairperson, AICTE	Chairperson
2	Rakesh Ranjan	Additional Secretary, Higher Education, MoE	Member
3	Amaresh Chakrabarti	Prof. & Chairman, Centre for Product Design & Manufacturing, Indian Institute of Science	Member
4	Dinesh Prasad Saklani	Director, NCERT	Member
5	Nidhi Chibber	Chairperson, CBSE	Member
6	Ashish S Kulkarni	Founder, Punaryug Artvision Pvt. Ltd.	Member
7	Austin Davis	Assistant Professor, National Institute of Design	Member
8	Biren Ghose	Country Head, Technicolor India	Member
9	Phani Tetali	Professor & Head, Industrial Design Centre, IIT Bombay	Member
10	Jesh Krishnamurthy	Founder & CEO, Anibrain	Member
11	Chaitanya Chinchlikar	Vice President- Business Development, Whistling Woods International	Member-Convenor

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2. The terms of reference of the Sub Task Force on Education are as under: -

i) Recommend ways to collaborate with the National Education Policy in terms of specific policies and recommendations relevant for the AVGC sector. Also, suggest innovations in education pedagogy including gamification, experiential learning, soft-hard skill linkages.

ii) Recommend ways to collaborate with institutions like AICTE/UGC/NCERT/CBSE and others to jointly develop comprehensive curriculum for schools and other educational institutions.

iii) Contribute in designing rural talent scouting programmes for AVGC education.

iv) Identify capacity building interventions for district and block level education departments with a focus on Tier 2 and Tier 3 cities.

v) Develop recommendations for a National Integrated Curriculum Framework, including degree/diploma/elective courses and faculty development in AVGC sector.

vi) Develop an industry-academia collaboration platform with focus on internships, scholarships, industrial training, industry-as-faculty, placements, and technology access.

vii) Develop frameworks for ensuring sustainable scholarships to meritorious students.

viii) Develop partnerships with international academia and faculty in school/higher education and recommend measures for uniformity and alignment to international best practices.

ix) Any other matter relating to AVGC education with permission of the Chairperson of the Task Force.

3. AVGC Cell in the Ministry of Information and Broadcasting may provide necessary support for functioning of the Sub Task Force.

4. The Sub Task Force may consult experts from academia and industry to realize its mandate during its functioning.

5. **Term of members of the Sub Task Force:** The members shall be nominated for such period as decided by the AVGC Promotion Task Force.

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6. **Frequency of meetings:** The Sub Task Force should convene as required to adhere to the timelines of the AVGC Promotion Task Force.

7. **Timelines for submission of reports:** The Sub Task Force shall submit the final action plan to the Ministry before 31st July 2022.

8. The Sub Task Force Members will be entitled to travelling expenses, local transport and sitting fees in connection with the meetings as per extant rules.

9. This issues with the approval of the competent authority.

S Vijay Gopal

(S Vijay Gopal)
Under Secretary to the Government of India
Tel.: 011-2338 2487

Copy to:-

1. All members of the Sub Task Force on Education.
2. PPS to HMIB
3. PPS to HMOSIB
4. PPS to Secretary (I&B)/ PPS to AS&FA/PPS to AS/ PPS to JS(P&A)/ PPS to JS (B)/PPS to JS(EW)/ Dir(Films)
5. CEO, NITI Aayog, Parliament Street, New Delhi.
6. Under Secretary (Coordination), Department of Economic Affairs, Ministry of Finance.
7. PAO, Main Secretariat, M/o I&B

S Vijay Gopal

(S Vijay Gopal)
Under Secretary to the Government of India

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No. M-35020/5/2022-DO(FI)
Government of India
Ministry of Information & Broadcasting
A Wing, Shastri Bhawan, New Delhi

Dated 1st June, 2022

OFFICE ORDER No. 4/2022

The first meeting of newly announced AVGC Promotion Task Force was held on 4th May 2022 in Ministry of Information and Broadcasting. In the meeting, it was decided that four Sub-Task Forces shall be constituted namely, for Education, Skilling, Gaming and Industry & Policy. These sub-groups will work towards devising strategies of growth through targeted interventions in their respective areas. The recommendations from the Sub-Task Forces will be in areas of policy formulation, capacity building, infrastructure development, technological access, research and development, creating local IPs, enhancing export potential, etc. Further, all recommendations shall adhere to the principles of inclusion, equity, diversity, and sustainability.

The composition of the Sub Task Force on Gaming is as under: -

Sl.No.	Name	Designation &Organization	Role
1	Vikram Sahay	Joint Secretary, MoIB (Chairperson, Sub Task force)	Chairperson
2	Anna Roy	Senior Adviser, NITI Aayog	Co-Chairperson
3	Vinay Thakur	COO, NeGD, MeitY	Member
4	Kishore Kichili	Country Head, Zynga India	Member
5	Manish Agarwal	CEO, Nazara Technologies	Member
6	Manvendra Shukul	CEO, Lakshya Digital	Member
7	Neeraj Roy	Founder and Chief Executive Officer, Hungama Digital Media	Member
8	Sameer Barde	CEO, E-Gaming Federation	Member
9	Ramesh A	Founding Partner, A Plus Associates	Member
10	Sumit Mehra	Principal Group Manager, Microsoft	Member
11.	Kshitij Agarwal	Assistant Director, Ministry of Information & Broadcasting	Convenor

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2. The terms of reference of the Sub Task Force on Gaming are as under: -

i) Recommend tangible action plan for boosting R&D in development of gaming content and suggest ways to boost creation of local IPs in the sector.

ii) Develop a framework for a mentorship programme that can serve as a platform for industry mentors to engage with the young talent seeking career opportunities in the gaming sector.

iii) Recommend policies to ease access to best-in-class technology for creation of high-quality gaming content within the country.

iv) Recommend ways to encourage co-production between Indian and global gaming companies to reduce the technology cost and have a wider audience coverage.

v) Any other matter relating to the gaming sector with permission of the Chairperson of the Task Force.

3. AVGC Cell in the Ministry of Information and Broadcasting may provide necessary support for functioning of the Sub Task Force.

4. The Sub Task Force may consult experts from academia and industry to realize its mandate during its functioning.

5. **Term of members of the Sub Task Force:** The members shall be nominated for such period as decided by the AVGC Promotion Task Force.

6. **Frequency of meetings:** The Sub Task Force should convene as required to adhere to the timelines of the AVGC Promotion Task Force.

7. **Timelines for submission of reports:** The Sub Task Force shall submit the final action plan to the Ministry before 31st July 2022.

8. The Sub Task Force Members will be entitled to travelling expenses, local transport and sitting fees in connection with the meetings as per extant rules.

9. This issues with the approval of the competent authority.

S Vijay Gopal

(S Vijay Gopal)
Under Secretary to the Government of India
Tel.: 011-2338 2487

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Copy to:-

1. All members of the Sub Task Force on Gaming.
2. PPS to HMIB
3. PPS to HMOSIB
4. PPS to Secretary (I&B)/ PPS to AS&FA/PPS to AS/ PPS to JS(P&A)/ PPS to JS (B)/PPS to JS(EW)/ Dir(Films)
5. CEO, NITI Aayog, Parliament Street, New Delhi.
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S Vijay Gopal

(S Vijay Gopal)
Under Secretary to the Government of India

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THE SURPRISE SENSATION OF THE YEAR FROM MIGHTY MARVEL!
Also: "SOMEWHERE LURKS THE PHANTOM
APPROVED BY THE COMICS CODE AUTHORITY
VINCIBLE
IRON MAN
OPERATION: DOOM
WE *DOOM

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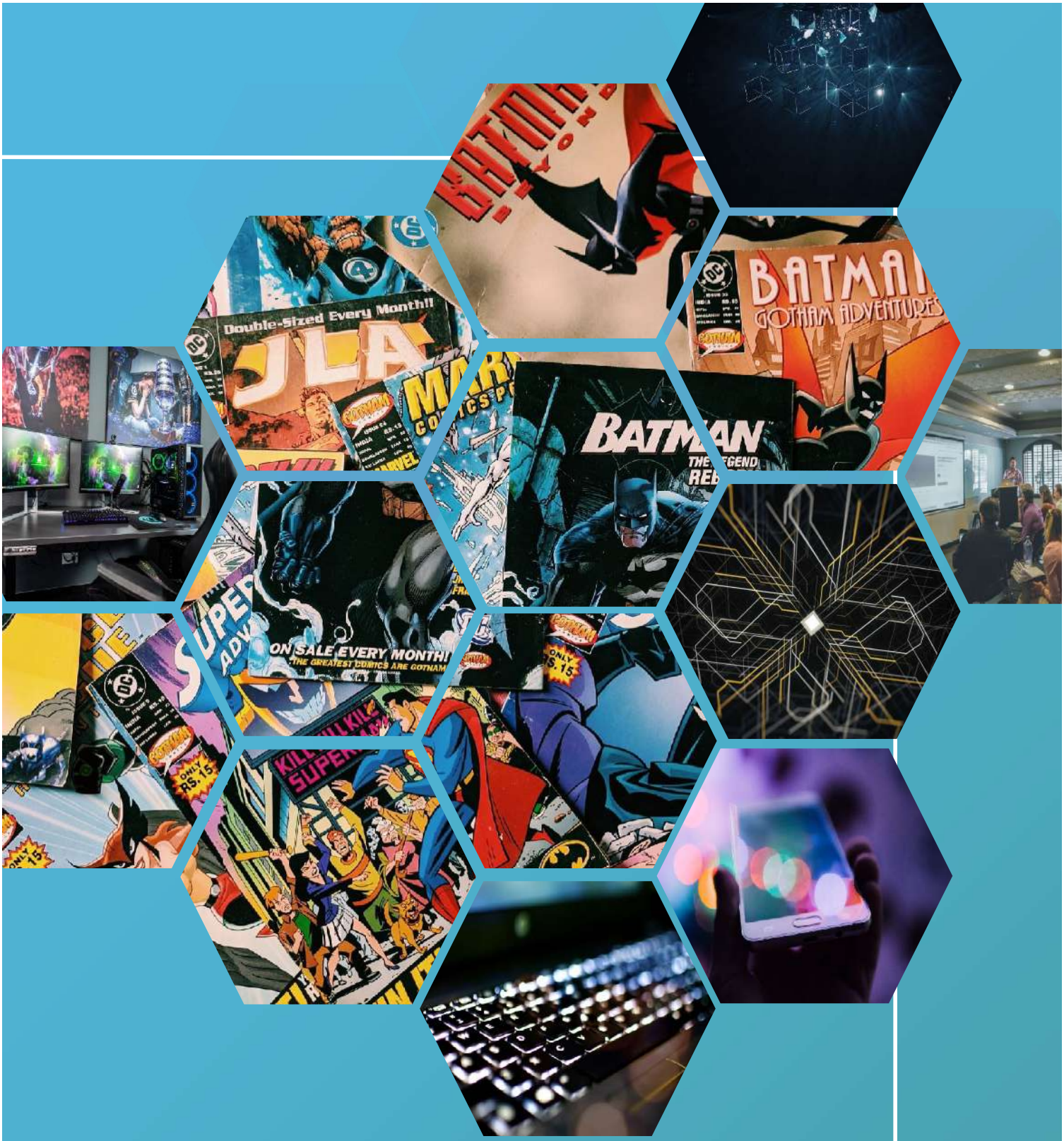

सूचना एवं
प्रसारण मंत्रालय
MINISTRY OF
INFORMATION AND BROADCASTING

सत्यमेव जयते