



GOVERNMENT OF INDIA

**NATIONAL INNOVATION COUNCIL  
2010 - 2014**



*National  
Innovation  
Initiatives*





**NATIONAL INNOVATION COUNCIL  
2010 - 2014**



## Decade of Innovation

**Shrimati Pratibha Patil**  
Former President of India

“ The knowledge society in which we live today, creativity, innovation and enterprise hold the key to people and nations realizing their potential. The *“dreary desert sand of dead habit”* must be left behind. Our young people are tearing down the narrow domestic walls of religion, region, language, caste, and gender that confine them. The Government will ensure that its policies for education and science and technology are imbued with a spirit of innovation so that the creativity of a billion people is unleashed. The next ten years would be dedicated as a Decade of Innovation. It may be a symbolic gesture but an important gesture to drive home the need to be innovative in finding solutions to our many challenges.

”

*Address to Parliament  
4<sup>th</sup> June, 2009 New Delhi*

“

National Innovation Council has been given the mandate to evolve an Indian model of innovation focusing on inclusive growth and creating an appropriate ecosystem conducive to fostering inclusive innovation. It will delineate appropriate policy initiatives within the government required to spur innovation. It will also promote the setting up of Sectoral Innovation Councils and State Innovation Councils. While encouraging all important sectors of the economy to innovate, it will take special efforts to facilitate innovation by micro, small and medium enterprises. Innovation in public services delivery and encouraging multi-disciplinary and globally competitive approaches for innovations would be focused on by the Council.

”

August 16<sup>th</sup>, 2010  
New Delhi

# Innovation to address Our Challenges

**Dr. Manmohan Singh**  
Prime Minister of India



A portrait of Dr. Sam Pitroda, an elderly man with white hair, a beard, and glasses, wearing a dark suit and tie. The background is a blurred indoor setting.

# Addressing key challenges *Diversity, Demography & Development*

**Dr. Sam Pitroda**  
Chairman, National Innovation Council

“

India today is in the midst of the most exciting of times and the challenging of times. The forces of technology, modernisation, urbanisation, and our unique demographic dividend are shaping the future course of the country and paving the way for unprecedented development. However, as we move on this trajectory of development and growth, we also need to be mindful that we are creating a society that is inclusive and equitable. India has a huge reservoir of unmet needs in critical areas such as health, education, agriculture, energy which is depriving large sections of our populations from aspiring to opportunities that would transform their future for the better. It is in this context that innovation matters in India. Innovation that can offer solutions to existing problems where conventional approaches have failed to deliver results holds the key to a more inclusive development model – a model that can enhance access, affordability, service delivery and improve the lives of the people at the bottom of the economic pyramid.

”

# Innovations

- *People, culture, diversity, ecosystem and opportunities drive Innovations*
- *Required to develop new products, services, markets and to reduce costs, improve efficiency, productivity, performance and quality*
- *Innovations are the key to growth, prosperity and problem solving world over*
- *Key to Inclusive growth*
- *Everything we do today is essentially obsolete*
- *At times we have 19th Century mindset, 20th Century processes and 21st Century needs.*

# Innovation Pillars

## ***Human Capital & Tools***

- Mindset / Talent
- Knowledge workers / Entrepreneurs
- Broadband connectivity / Internet
- New collaborations / Social networks

## ***Governance/ Markets/Finance***

- R&D investment
- Policies / processes
- Infrastructure
- Competitiveness
- Risk capital

## ***Global Dimensions***

- Universal Applications
- Speed to scale / Opensource innovations

## ***Changing Nature***

- Multi Disciplinary
- Collaborative
- Faster than ever before

## ***Measurements***

- Benchmarks / Standards / Analysis



**Dr A Didar Singh**

Federation of Indian Chambers of Commerce & Industry (FICCI)



**Dr Anil K Gupta**

Executive Vice Chair, National Innovation Foundation



**Mr Arun Maira**

Member, Planning Commission



**Mr Chandrajit Banerjee**

Director General, Confederation of Indian Industry(CII)



**Dr Devi Prasad Shetty**

Founder, Narayana Hrudayalaya Pvt. Ltd.



**Dr Indranil Manna**

Indian Institute of Technology (IIT), Kanpur



**Dr K Kasturirangan**

Member, Planning Commission



**Mr Kiran Karnik**

Former President, National Association of Software and Services Companies (NASSCOM)

# Members of National Innovation Council





**Ms Kiran Mazumdar Shaw**

Chairman and Managing Director Biocon Ltd.



**Dr Ramesh Mashelkar**

Chairman, National Innovation Foundation



**Mr R Gopalakrishnan**

Director, Tata Sons



**Dr Samir Brahmachari**

Former Director General, Council of Scientific & Industrial Research (CSIR)



**Mr Saurabh Srivastava**

Former Chairman, National Association of Software and Services Companies (NASSCOM)



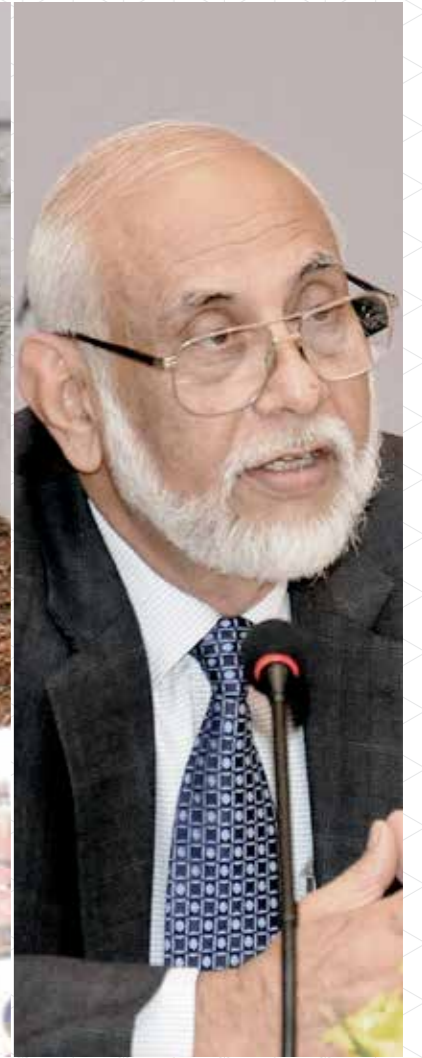
**Mr Shekhar Kapur**

Film Director and Producer



**Dr Sujatha Ramdorai**


Member, Scientific Advisory Council to the Prime Minister



**Dr B K Gairola**

Member Secretary, National Innovation Council and Mission Director, e-Governance

# Members of National Innovation Council

The background is a solid red color. On the left side, there are several thick, abstract lines. A green line starts from the top left, curves down and to the right, then curves back down and to the left. A yellow line starts from the bottom left, curves up and to the right, then curves back down and to the left. These lines overlap and create a sense of movement and flow.

*Innovation involves thinking differently,  
creatively and insightfully to create solutions  
that have an impact in terms of social and  
economic value.*

# National Innovation Council

# NInC Terms of Reference

## Formulating an Innovation Roadmap for '2010-2020 Decade of Innovation'

### Creating a Framework for

Evolving an Indian model of innovation, with focus on inclusive growth

Delineating policy initiatives within the Government, required to spur innovation

Developing and championing innovation attitudes and approaches

Creating appropriate ecosystems and environment to foster inclusive innovation

Exploring new strategies and alternatives for innovations and collaborations

Identifying ways and means to scale and sustain innovations

Encouraging Central and State Governments to innovate

Encouraging universities and R&D institutions to innovate

Facilitating innovations by SMEs

Encouraging all important sectors of the economy to innovate

Encouraging innovation in public service delivery

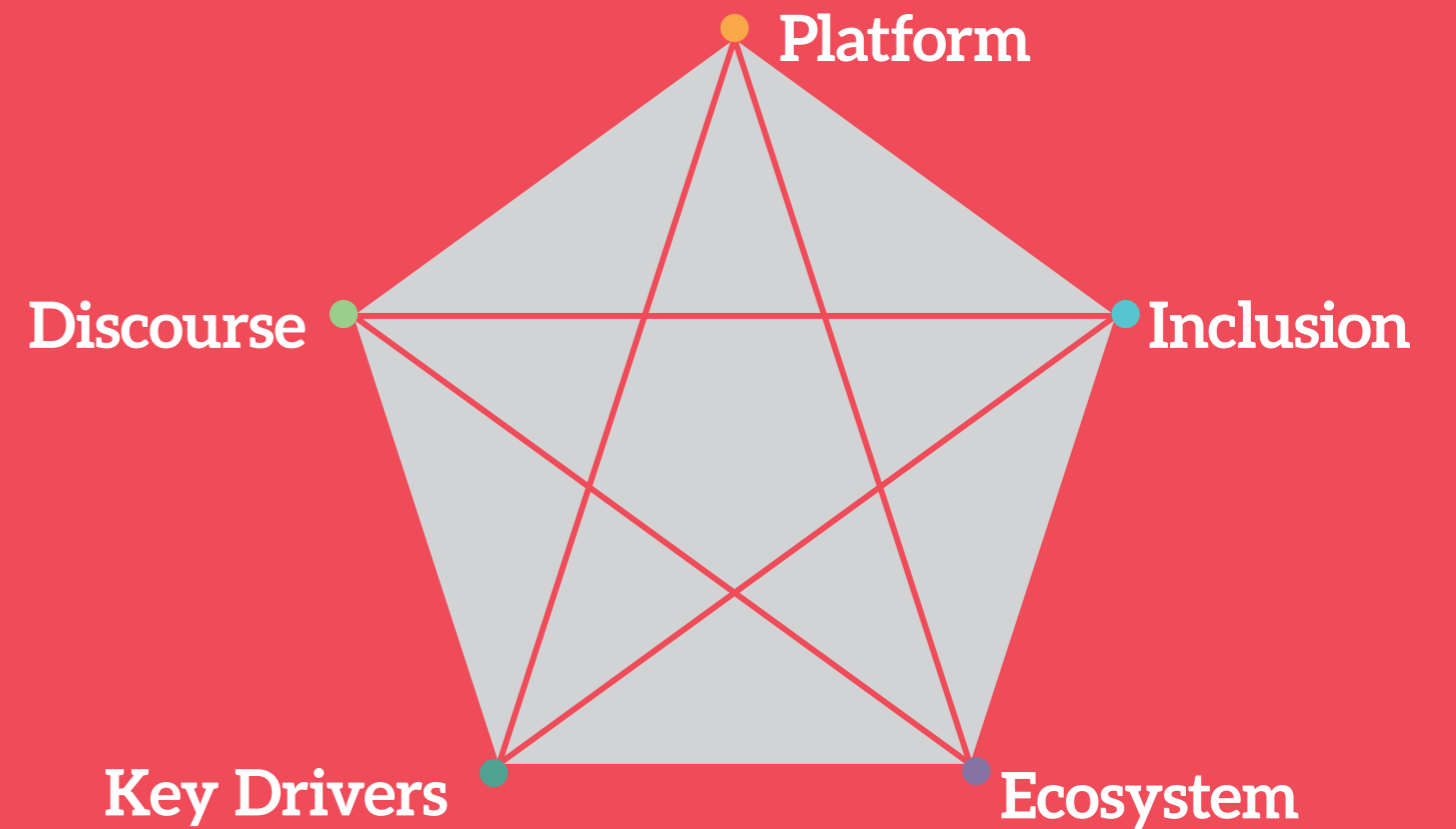
Encouraging multi-disciplinary and globally competitive approaches for innovations

# National Innovation Council Strategy

While India has a long tradition of innovation, we as a nation need to do more to sustain a culture of innovation and leverage it to reduce disparity and deliver equitable development. India has unique challenges and large unmet needs across diverse areas such health, education, agriculture, energy, urbanisation and so on. We also have significant challenges of exclusion, as a result of multiple deprivations of class, caste and gender - all of which require new approaches and solutions, and looking beyond the conventional way of doing things. Innovative solutions are going to be the key for providing answers to the most significant challenges in our country and for creating opportunity structures for sharing the benefits of the emerging knowledge economy.

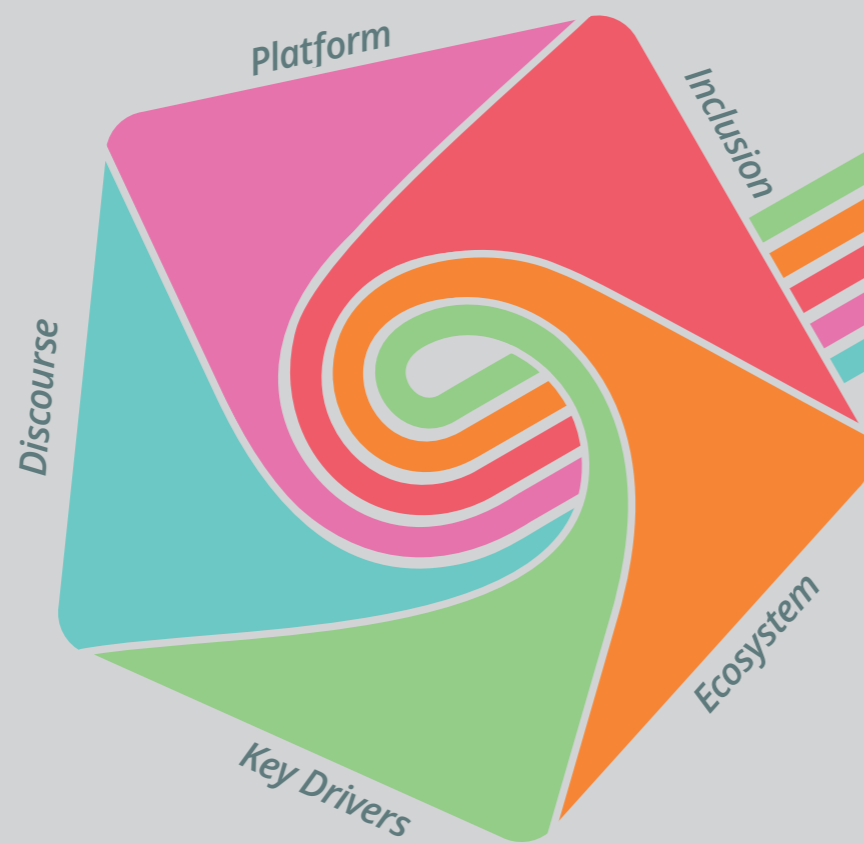
***In this context, India needs an innovation strategy geared towards creating an 'Indian model of development' with a focus on 'more from less for more'. India needs more 'frugal, distributed, affordable' innovation that produces more frugal cost' products and services that are affordable by people at low levels of incomes without compromising the safety, efficiency, and utility of the products.***

The Indian approach could also provide an innovation model for developing countries across the globe confronting similar challenges of inclusion. The Council's strategy on innovation is focused around five key principles



# National Innovation Council Strategy

*The various initiatives of the Council have been built around these strategic parameters with a wide range of stakeholder consultation and involvement.*



## 1. Platform

Look beyond traditional R&D to create broader platforms that break sectoral silos and encourage not only technology innovations but innovations in organisational, process and service models.

## 2. Inclusion

Innovate to produce affordable and quality solutions for people in the bottom half of the socio-economic pyramid leading to social impact, elimination of disparity and inclusive growth.

## 4. Key Drivers

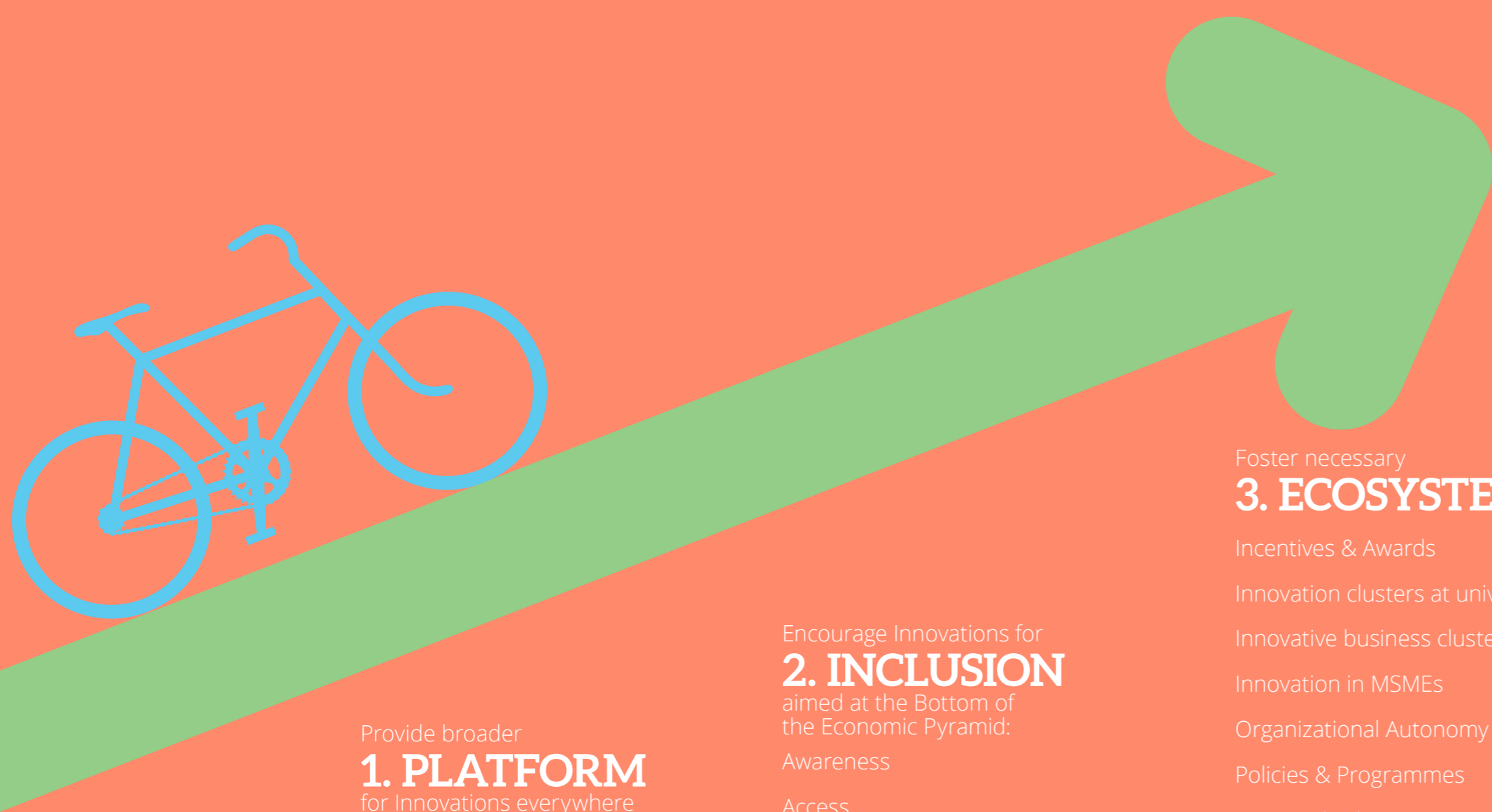
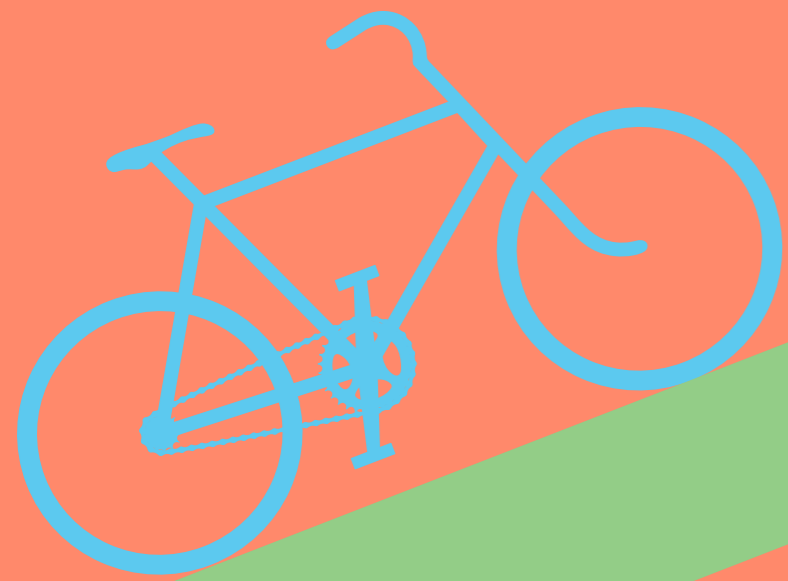
The key drivers while conceptualising the initiatives of the Council, the key drivers will be parameters of sustainability, affordability, durability, quality, global competitiveness and local needs.

## 3. Ecosystem

Fostering innovation ecosystems across domain and sectors to strengthen entrepreneurship and growth, to facilitate the birth of new ideas and enhance collaboration to enhance economic value.

## 5. Discourse

Aim to expand NInC, through its various initiatives, will aim to expand the space for disruptive thinking, dialogue and discourse on innovation and involve multiple stakeholders in the process.



## 1. PLATFORM

Provide broader for Innovations everywhere to include:

- Products
- Services
- Organizations & Institutions
- Processes
- Research & Development
- Science & Technology
- Governance
- Social and Cultural
- Mindset
- National/ State/ Sectoral Councils

## 2. INCLUSION

Encourage Innovations for aimed at the Bottom of the Economic Pyramid:

- Awareness
- Access
- Affordability
- Availability
- Scalability
- Sustainability
- Quality
- Pervasive Growth
- Innovations for/by the people

## 3. ECOSYSTEM

- Incentives & Awards
- Innovation clusters at universities
- Innovative business clusters
- Innovation in MSMEs
- Organizational Autonomy & Flexibility
- Policies & Programmes
- New Institutions
- Risk/ Venture Capital
- IPR/ Patents
- Web & ICT as tools

## 4. DRIVERS

- Multidisciplinary
- Collaborative
- Disruptive
- Generational Change vs. Incremental Change
- Durable vs. Disposable
- Need vs. Demand
- Nature as Nurture
- Locally Relevant
- Globally Connected and Competitive
- Focus at the Edge

Expand Space for **5. DISCOURSE** on Innovation in the country by:

- Discussions
- Debates
- Seminars
- Conferences
- Best Practices
- Subversive Dialogue
- Irreverent Dialogue
- New Ideas
- Media
- Innovation Portal

## Impact

*The five-pronged focus will foster innovations by:*

- *Democratizing Information*
- *Identifying and empowering domain experts at National, State & District levels*
- *Ensuring institutional autonomy, freedom, flexibility, accountability and transparency*
- *Increasing community and public participation at all levels*
- *Improving Governance & Planning*



# Indian Challenges

## Disparity

- Rich & Poor
- Urban & rural
- Educated & Uneducated

## Demography

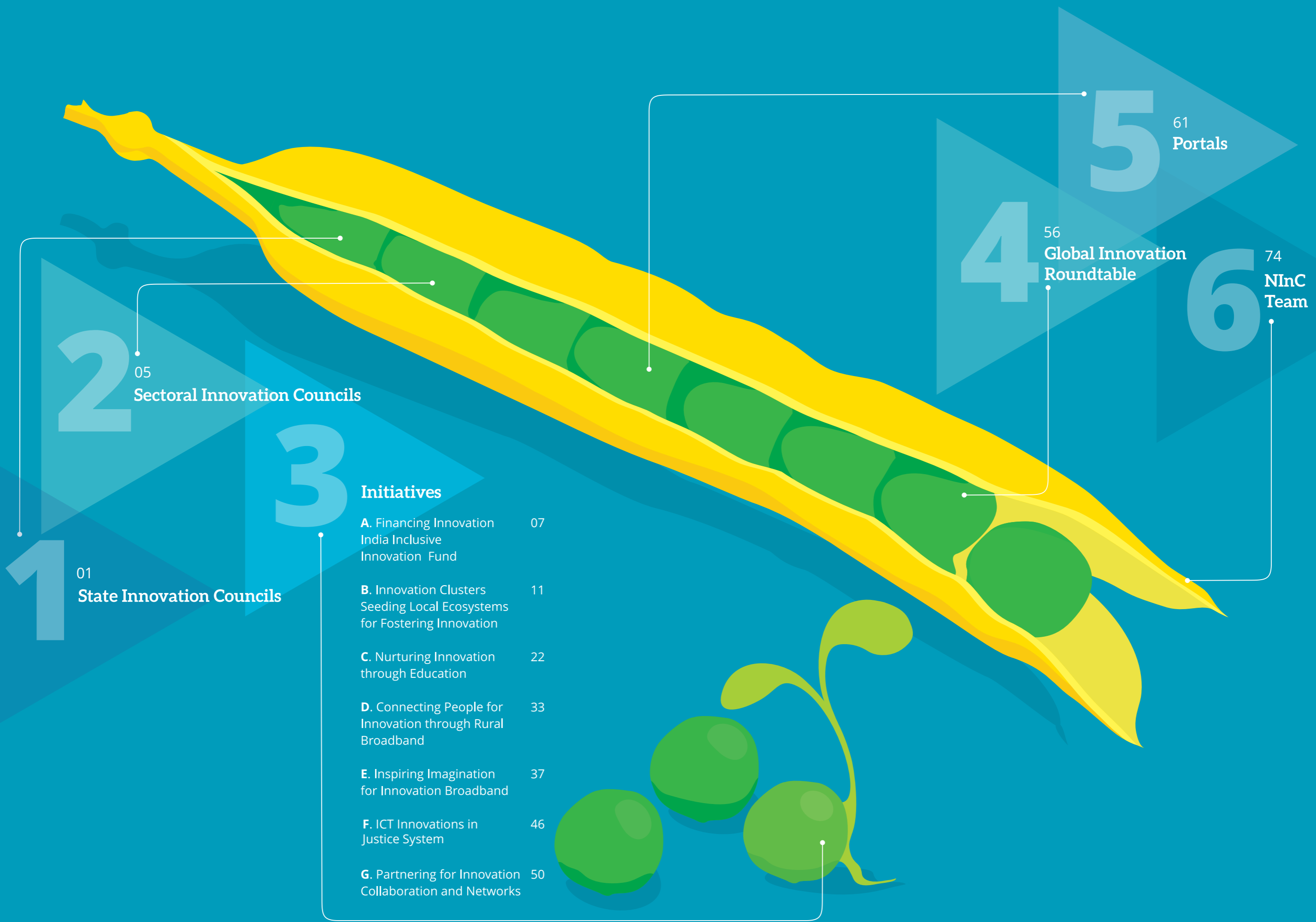
- 550 million below 25 years
- Health, Nutrition
- Education, Jobs

## Development

- Expedite the process & create new methods & new models







**01 State Innovation Councils**

**05 Sectoral Innovation Councils**

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**56 Global Innovation Roundtable**

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**74 NInC Team**





Institutional Framework  
for Promoting Innovation

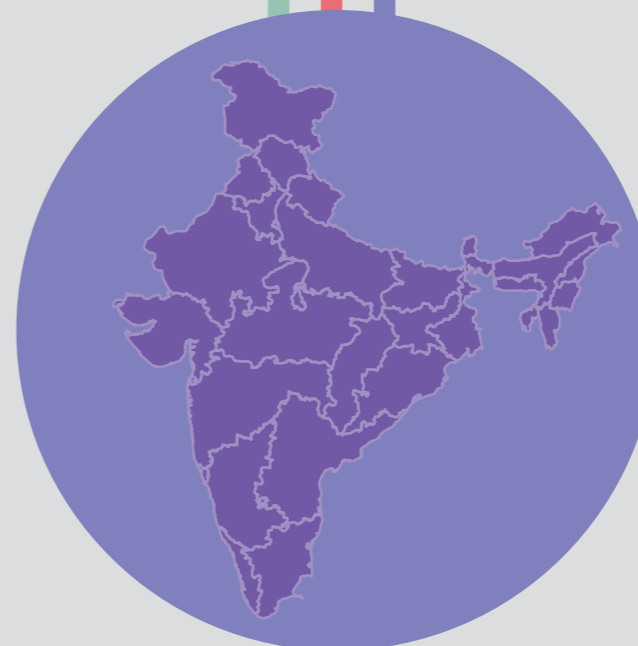
# State Innovation Councils

To create regional platforms to boost inclusive innovation in the Country, NInC recommended creation of State Innovation Councils in all the States & Union Territories.

## 31 State and U.T. Innovation Councils

Arunachal Pradesh	Manipur
Assam	Meghalaya
Bihar	Mizoram
Chhattisgarh	Nagaland
Goa	Odisha
Gujarat	Punjab
Haryana	Rajasthan
Himachal Pradesh	Sikkim
Jammu and Kashmir	Tripura
Jharkhand	Uttar Pradesh
Karnataka	
Kerala	
Madhya Pradesh	
Maharashtra	

Andaman and Nicobar Islands  
Chandigarh  
Dadra and Nagar Haveli  
Daman and Diu  
Delhi  
Lakshadweep  
Puducherry (Pondicherry)



# State Innovation Councils

The State Innovation Council (SInC) will replicate the efforts of the National Innovation Council to nurture an innovation ecosystem at the State level. The innovation ecosystem consists of five critical ingredients namely –

- (a) providing a conducive policy framework;
- (b) offering institutional platforms for inter-agency collaborations;
- (c) strengthening and expanding ICT connectivity;
- (d) fostering innovations in the education system;
- (e) and setting up a regime of incentives and rewards to encourage innovations.

The SInCs are expected to carry forward the innovation movement on all these five fronts and present a Roadmap or Innovation Action Plan (IAP) for the State.

## Structure and Composition of the SInCs

*The aim is to encourage State Innovation Councils to emerge as unique platforms within the Government establishment that bring together policy-makers, leading academicians, researchers, industry members, and eminent professionals to propose ideas for transforming the innovation capabilities of the state.*

For this purpose NInC had recommended that the Councils include representation from various stakeholders. While the Councils may be set up under the aegis of the Chief Secretary of the State, they are envisioned to be autonomous bodies which would act as platforms for incorporating voices from outside the Government to enrich the knowledge base of the Government. The focus would be on recommending enabling policies and concrete strategies for action for spurring the innovation effort in the State.

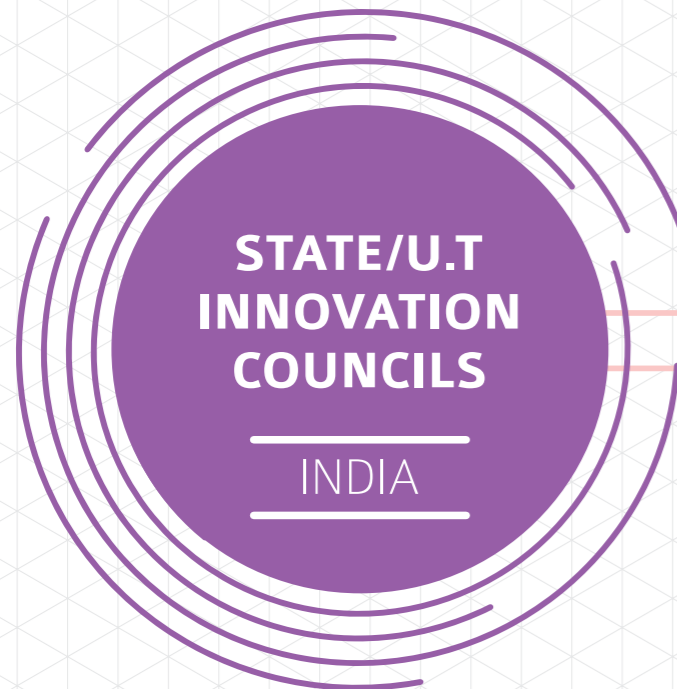
Apart from the Government representatives, NInC had proposed the following domain experts as members of such Councils –



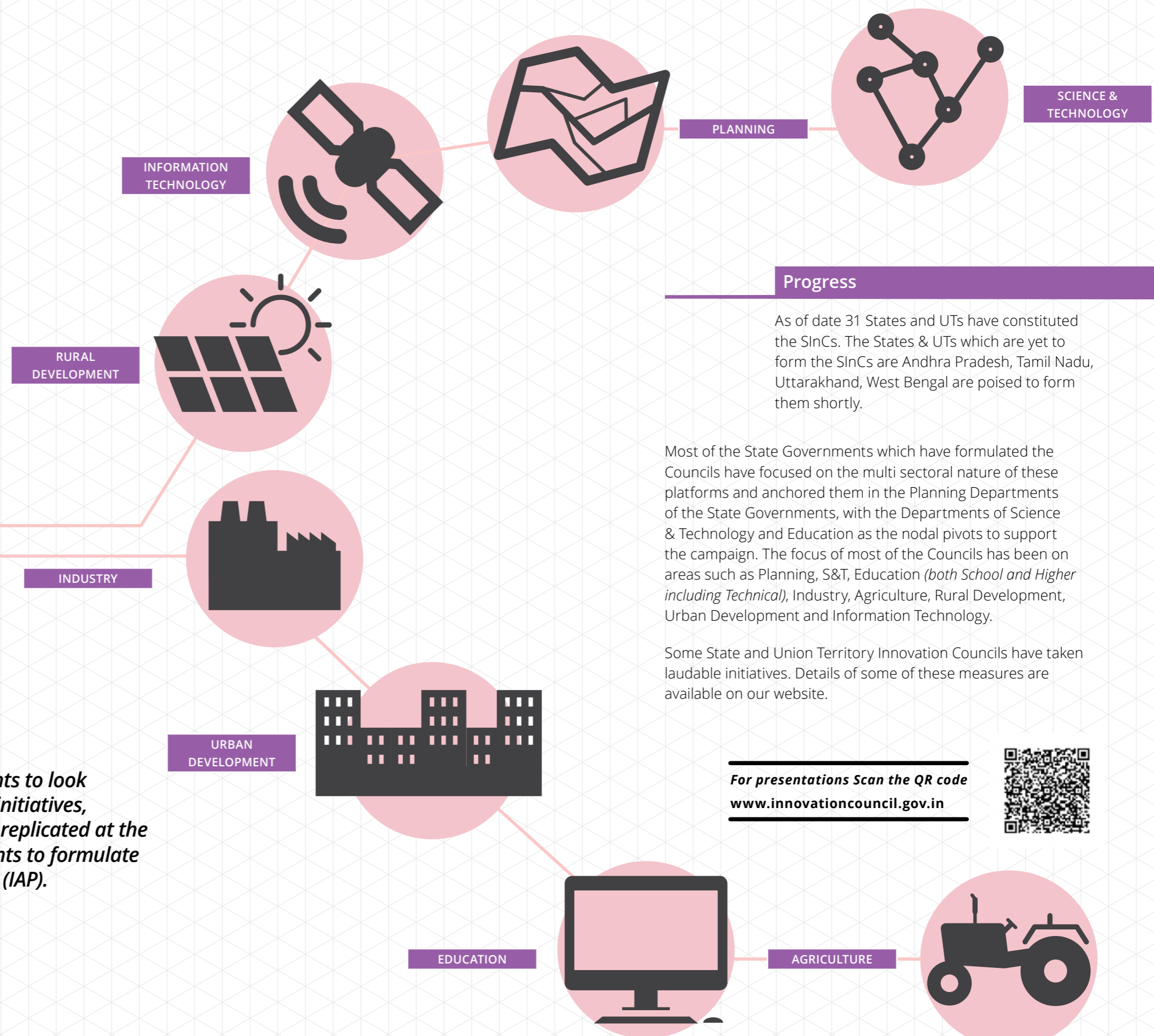
NInC has recommended that the proposed Councils tap into, as well as integrate with, existing mechanisms and platforms for spurring innovation at the local level.

**One such mechanism is the District Innovation Fund, recommended by the Thirteenth Finance Commission, under the purview of the Department of Expenditure, Ministry of Finance, Government of India.**

Under the said Scheme, an amount of ₹ one crore per district has been allocated for innovative activities. NInC has also nominated its members as mentors for the SInCs to ensure that the latter has access to the best national expertise in the innovation space while formulating its strategies and initiatives.



**NInC is encouraging the State Governments to look at some of the National level innovation initiatives, pioneered by the Council, which could be replicated at the State level to enable the State Governments to formulate their Roadmap or Innovation Action Plan (IAP).**



### Progress

As of date 31 States and UTs have constituted the SInCs. The States & UTs which are yet to form the SInCs are Andhra Pradesh, Tamil Nadu, Uttarakhand, West Bengal are poised to form them shortly.

Most of the State Governments which have formulated the Councils have focused on the multi sectoral nature of these platforms and anchored them in the Planning Departments of the State Governments, with the Departments of Science & Technology and Education as the nodal pivots to support the campaign. The focus of most of the Councils has been on areas such as Planning, S&T, Education (*both School and Higher including Technical*), Industry, Agriculture, Rural Development, Urban Development and Information Technology.

Some State and Union Territory Innovation Councils have taken laudable initiatives. Details of some of these measures are available on our website.

**For presentations Scan the QR code**  
[www.innovationcouncil.gov.in](http://www.innovationcouncil.gov.in)





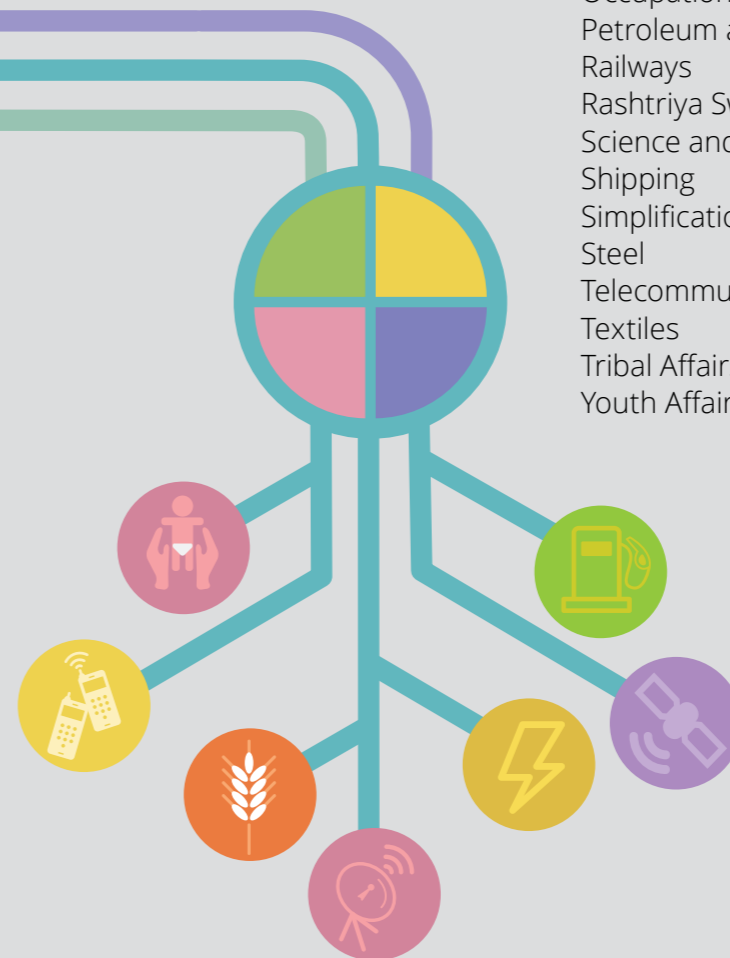
Institutional Framework  
for Promoting Innovation

# Sectoral Innovation Councils

To create horizontal platforms to boost inclusive innovation in the Country, NInC recommended creation of Sectoral Innovation Councils in all Ministries of the Union Government.

## 28 Sectoral Innovation Councils

- Chemicals and Fertilizers
- Chemicals and Petrochemicals
- Civil Aviation
- Commerce
- Communications & Information Technology
- Drinking Water and Sanitation
- Grameen Vikas
- Health & Family Welfare
- Heavy Industries
- Human Resource Development
- Industrial Policy and Promotion
- Information and Broadcasting
- Information Technology
- Innovation Council on Nano electronics
- Ministry of Micro, Small & Medium Enterprises
- Occupational Safety and Health
- Petroleum and Natural Gas
- Railways
- Rashtriya Swasthya Bima Yojana
- Science and Technology
- Shipping
- Simplification and Amalgamation of Labour Laws
- Steel
- Telecommunications
- Textiles
- Tribal Affairs
- Youth Affairs & Sports



# Sectoral Innovation Councils

The Sectoral Innovation Councils are expected to drive the innovation agenda in the country across various sectors and harness the core competencies, local talent, resources and capabilities to create new opportunities. The Councils will also work towards creating a roadmap for the decade for the particular sector. The Sectoral Innovation Councils would look at cross-cutting themes that impact the sector and hence work collaboratively with other Councils.

The focus would be on undertaking activities that improve the innovation quotient of the sector going forward, with a special emphasis on inclusive and sustainable innovation. The policy interventions and recommendations would be outlined in a Roadmap for Innovations for 2010-2020. Simultaneously, the councils would also undertake initiatives that emerge out of insights captured in the recommendations.

## Progress

**28 Ministries and Departments have formed Sectoral Innovation Councils so far. Roadmaps have been submitted by 8 Ministries and Departments viz Fertilizers, Health and Family Welfare, Information & Broadcasting, Power, Petroleum and Natural Gas, Science, Nanoelectronics by DietY and Technology & Telecommunication. The Reports have been uploaded on our website [www.innovationcouncil.gov.in](http://www.innovationcouncil.gov.in)**



HEALTH and FAMILY WELFARE



FERTILIZERS



INFORMATION and BROADCASTING



POWER



NANOELECTRONICS



SCIENCE

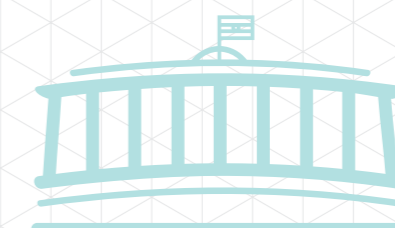


PETROLEUM and NATURAL GAS



TECHNOLOGY and TELECOMMUNICATION

8 ROADMAPS SUBMITTED BY  
**MINISTRIES and DEPARTMENTS**



BUDGET SPEECH  
**Finance Minister**  
28<sup>th</sup> February, 2011

“In order to promote innovations, the National Innovation Council, under Dr Sam Pitroda, has been instituted to chalk out plans for promotion of innovations in India. Activities for setting up of the State Innovation Councils in every State and Sectoral Innovation Councils aligned to Central Ministries are also underway”.



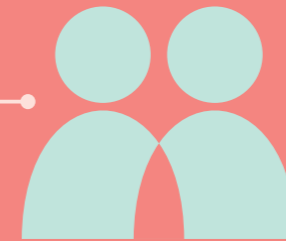
Financing Innovation: IIF  
India Inclusive Innovation Fund (IIF)



Nurturing Innovation  
through Education



Connecting people for innovation  
through Rural Broadband



Partnering for Innovation -  
Collaboration and Networks

# Initiatives



Innovation Clusters Seeding  
Local Ecosystems for  
Fostering Innovation



ICT Innovations in  
the Judicial System



Inspiring  
Imagination  
for Innovation





Financing Innovation

# The India Inclusive Innovation Fund



To promote inclusive innovation and entrepreneurship focusing on the needs of the citizens who lie in the bottom of the economic pyramid, an India Inclusive Innovation Fund (IIIF) has been launched jointly by the National Innovation Council and the Ministry of Micro, Small and Medium Enterprise.

One of the first of its kind in India of its size and range of activities, the Fund is conceived as a SEBI-registered venture capital fund that seeks to harness the dynamism of entrepreneurs and enterprises, to solve the problems at the lower half of India's economic pyramid through the creation of scalable sustainable enterprises. It aims to fill a presently unserved area of venture capital funding for enterprises, that create social impact and also generate a modest financial return.

***The Fund would be operationalised when it achieves its first closure of ₹ 500 crores and obtains registration from SEBI***

# The India Inclusive Innovation Fund (IIIF)

Social returns with moderate financial returns



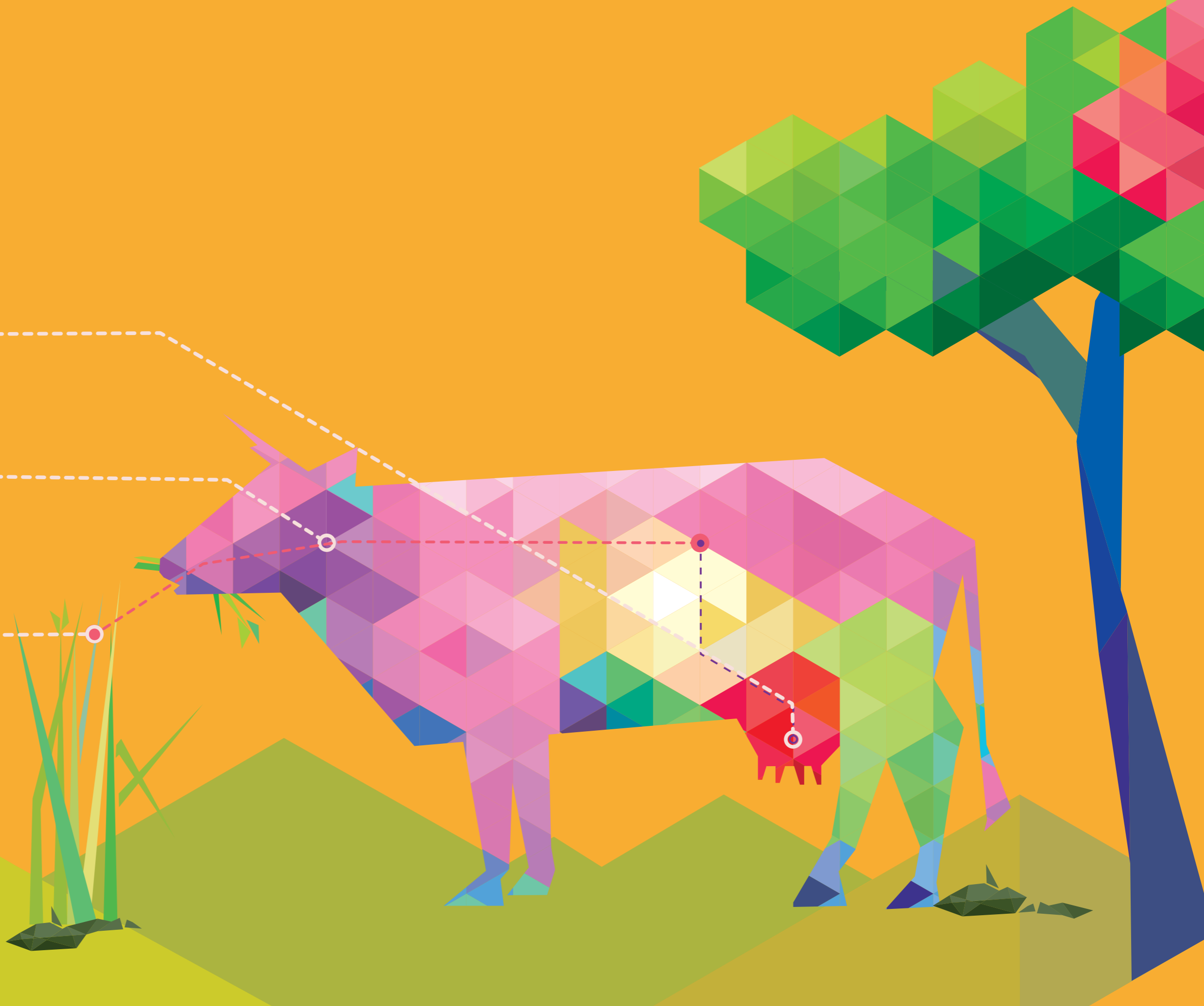
Social Impact



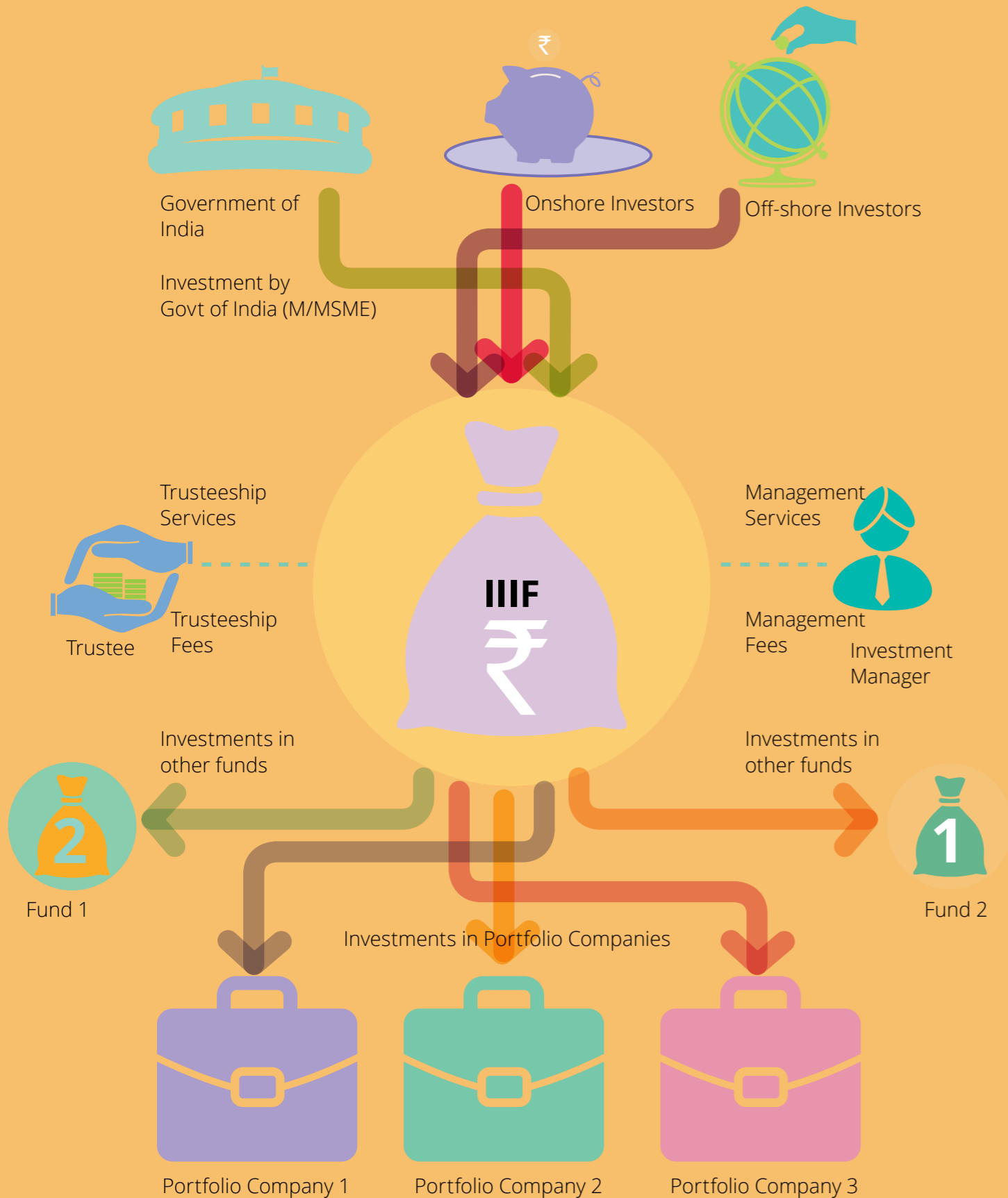
New Innovative Ideas or Creative Solutions



IIIF Contributors



# IIIF Structure



The Fund will need to combine venture capital's flexibility (*which allows investment into promising early-stage innovation*) with the accountability that must accompany social investments. The Council has developed an organisational design for the Fund that seeks to bridge the two: one that is based on the established venture capital format, with additional oversight and protection built into key decision-making elements.

Together with the Ministry of Micro, Small, and Medium Enterprises, the Council has proposed the following structure:

## Trust and Governing Council

The Council proposes to create a Trust under the provisions of the Indian Trusts Act, 1882, which will house the Trust and will be registered with the SEBI as a Category I AIF - VCF under the Alternative Investment Fund Regulations, with the Ministry of MSME and IDBI Trusteeship Services Ltd. as the co-settlers. IDBI Trusteeship Services Ltd. is an established trustee services company and would be the Trustee of the Fund.

The Governing Council would be responsible for laying out the broad policy guidelines and reviewing the overall performance of the Fund Manager. It will consist of maximum of ten members. One representative each of M/MSME and Department of Financial Services would be Ex-Officio members of the Governing Council (GC). The other eight members are proposed to be recommended by the NInC. They would consist of eminent professionals in the world of finance, public services, law etc. The GC will have the right to veto any investment decision if it believes its as per the social objective of the fund.

### Investment Manager (Asset Management Company)

In view of the high risk nature of the projects to be supported, an Investment Manager staffed by professional fund managers, will look after the day to day operations of the Fund. In view of the unique nature of the Fund, the Fund's Investment Manager will be a Section 25, not for profit Company and its shareholders and directors will not be entitled to any salaries, fees or dividends.

The initial share capital would be contributed on behalf of M/MSME and Department of Financial Services, contributing public sector entities and three members nominated by NInC.

The Government will not have any involvement in the day to day management of the IIIF which will be entrusted by the Investment Manager to a professional manager team. In addition to the investment management the asset management company will also build up mentoring networks, incubate enterprises and provide training and skills to entrepreneurs and assisted companies. The Government shareholding in the Asset Management company will be brought below 50% as and when the private contribution to the IIIF exceeds 50% of the corpus.

### Investment Committee

The Section 25 Investment Manager Company would establish an Investment Committee of a maximum 11 members, consisting of Fund contributors and professionals of repute, who have the relevant background of entrepreneurship, business, investment, etc. The Investment Committee will take all investment decisions, which will be subject to a veto by the Governing Council as stated above.

# IIIF Fundraising

## Government Contribution

At the launch of the Council's First Report to the People on 15<sup>th</sup> November 2011, the Hon'ble Finance Minister at the time Shri Pranab Mukherjee announced a Government of India contribution of ₹ 100 crores to kick-start the Fund. The interim Union Budget for the fiscal year 2014-15 has provided an initial contribution of ₹ 100 crores to the corpus of fund.

## Contribution from Other Sources

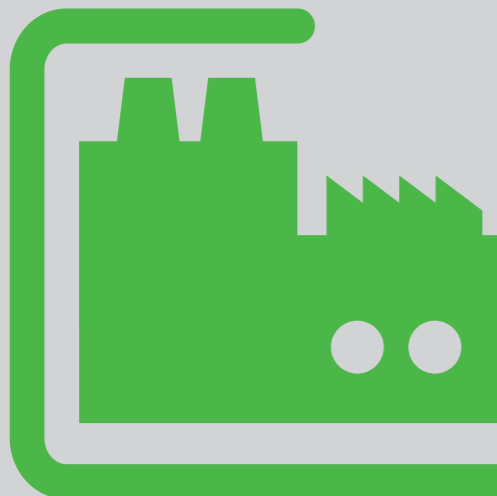
The balance 400 Cr will be sourced from scheduled banks, Insurance companies, financial institutions, corporates, bilateral and multilateral institutions etc. The Council has already received in principle commitment/support of ₹ 275 crores from, public sector banks, financial institutions, insurance companies and additional commitments are anticipated.

*The Ministry of Micro, Small and Medium Enterprise has received the Union Cabinet approval for setting up of the India Inclusive Innovation Fund with the Government contribution of ₹ 100 crores. The fund would be operationalised when it achieves its first closure of INR 500 crores and obtains registration from SEBI.*



# Innovation Clusters

*Seeding Local Ecosystems for Fostering Innovation*



Micro, Small and Medium Enterprises (MSMEs) are acknowledged as engines of socio-economic growth. For economies of scale, addressing issues of MSMEs at cluster-level has been a tried and tested approach. India has **6,000 MSME clusters** across sectors accounting for 8% of India's GDP.

Taking a cue from successes globally, NInC embarked on creating models for local innovation ecosystems around MSME clusters and Universities.

***By creating demand-driven and forward-connecting linkages between various stakeholders, NInC has successfully facilitated creation of 10 new products, 12 new processes and 2 new centers in pilots at 7 MSMEs and 2 Universities over a period of 36 months.***

# Innovation Clusters Seeding Local Ecosystems for Fostering Innovation

## Background

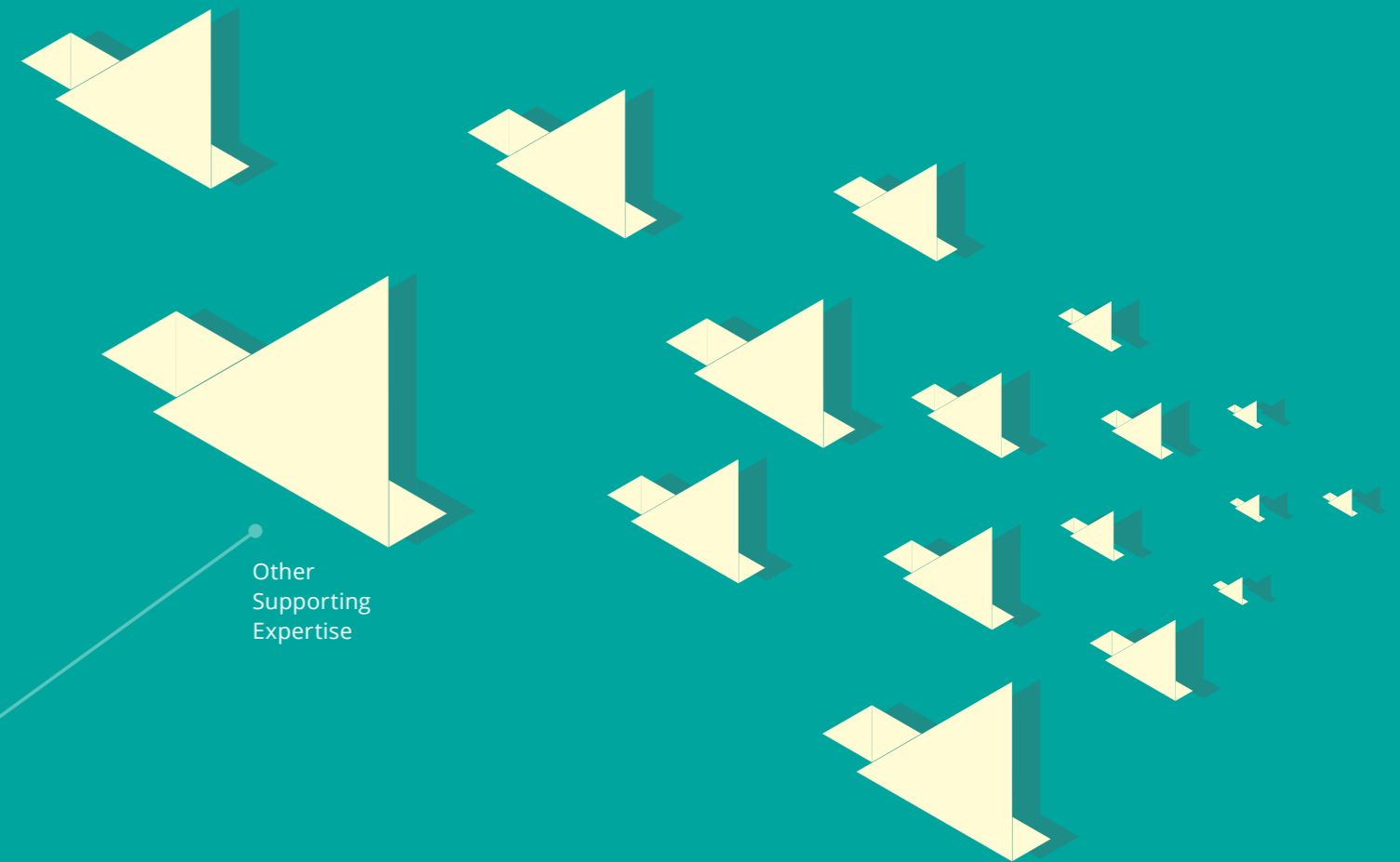
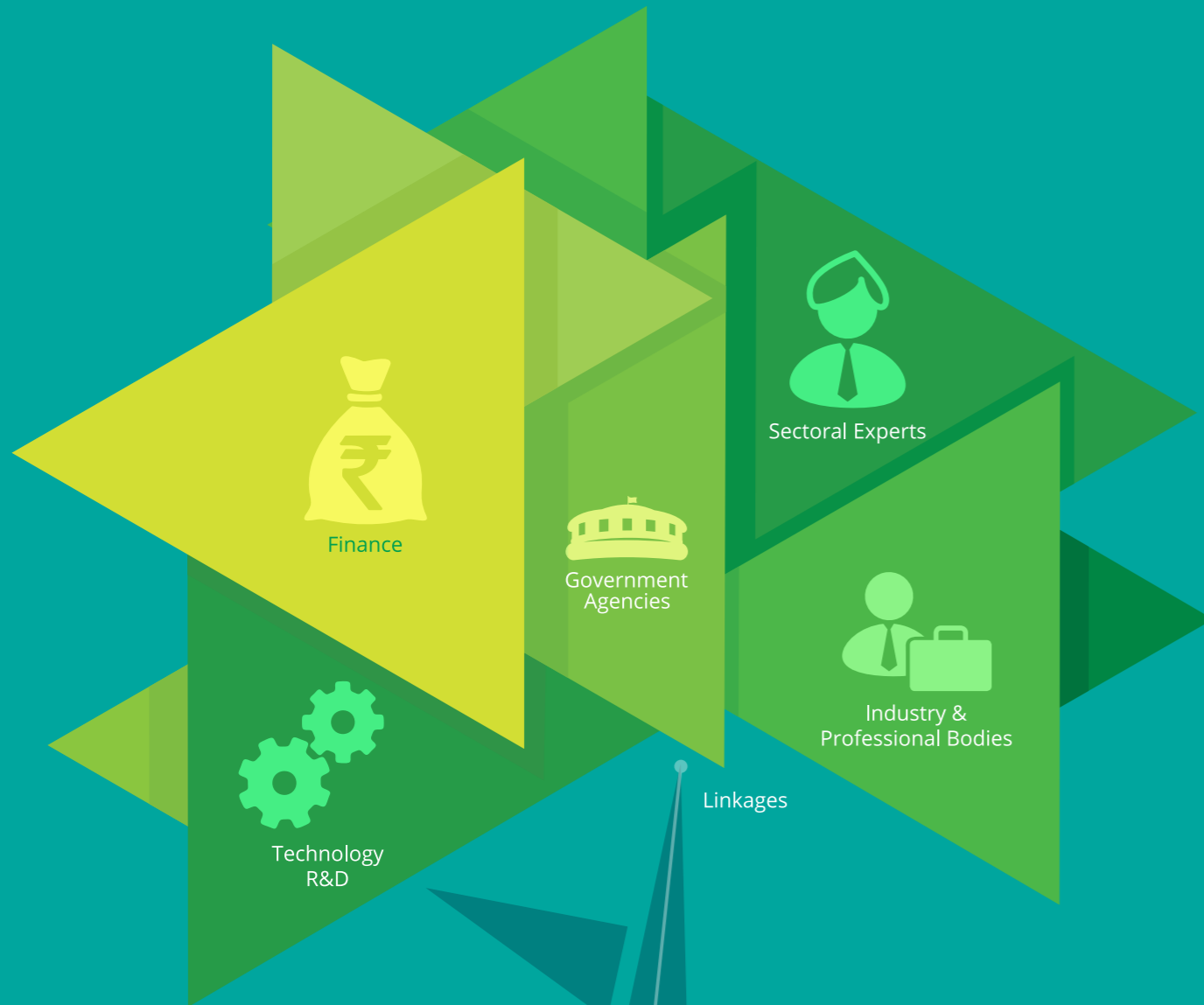
*Fostering formal and informal linkages between industry, academia, R&D, technology, finance, skilled manpower, market, mentors, domain expertise and others is seen as the key for innovation-driven growth.*

By partnering and collaborating, both public and private players can leverage mutual strengths and exploit opportunities for innovations in technology, products, services, business models and organisational models.

To be able to leverage economies of scale, given the geographic and demographic size of the country, NInC opted for a cluster-based approach to develop models for fostering

innovation in industry and knowledge institutions. The Innovation Cluster initiative envisaged creating local ecosystems, by enabling formation of mutually beneficial partnerships between various actors, thereby creating channels for knowledge and resource exchange. Providing such access will enable new industrial growth, increase job opportunities in the economy, and enable our industries to become more competitive globally, while creating avenues for conversion of knowledge into socio-economic wealth.

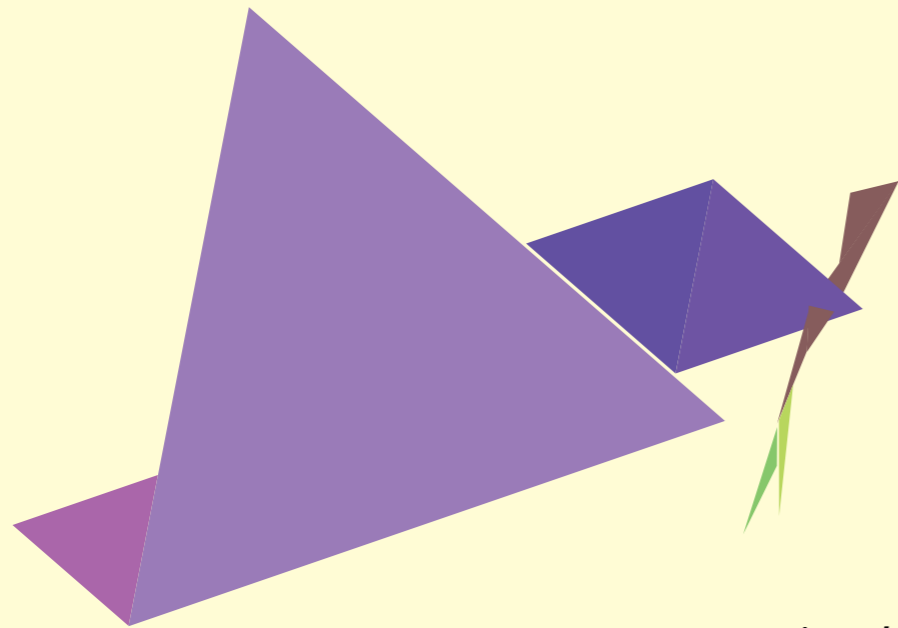
# Innovation Cluster Initiative



With a focus on establishing local ecosystems, the National Innovation Council (*NInC*) recommended creation of Cluster Innovation Centres (*CICs*) to act as hubs of the ecosystem. These *CICs* will, based on the demand for knowledge and resource, seek partnerships with relevant actors, on behalf of the cluster. The *CICs* will design and support implementation of collaborative innovation driven initiatives for the cluster and create mechanisms for percolation of the benefits derived from these initiatives to all members of the cluster.

The *CIC* model has truly proven to be capable of making MSMEs more productive and competitive, while opening hitherto unavailable, unknown avenues for innovation, job growth and socio-economic development.

***The initiative has also found mention in the Global Innovation Index 2013 Edition, published by World Intellectual Property Organization (WIPO), Cornell University and INSEAD.***



### ***Innovation Cluster Portal***

To support the CICs and provide a repository of knowledge about innovation and models, best practices etc., NInC created a portal and an online Innovation Toolkit. The toolkit is a collection of resources available on various topics related to innovation, innovation management, intellectual property (IP) and other topics, which serve as a useful knowledge base for an innovator. This material, in the form of videos, documents and links, has been found to be beneficial in initiating enthusiasts on the path of innovation. For further information please visit [www.innovationclusters.gov.in](http://www.innovationclusters.gov.in)



**Scan the QR code to visit the Portal**  
**[www.innovationclusters.gov.in](http://www.innovationclusters.gov.in)**

**Innovation Clusters - creating collaborative ecosystems**

**Upcoming: 8th Meeting of National Innovation Council**  
National Innovation Council is having its 8th meeting at Planning Commission on 25th June, 2013 to outline the agenda for action for the future.

[Enter The Portal](#)

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# Pilot with MSME (industry) clusters

MSMEs are constrained in many ways both in terms of resources (*time, finances, manpower, etc.*) and skills needed for innovation. It is also known that most MSMEs are in the informal economy, and engaging them has always been a challenge. Yet, they need innovation to create growth opportunities, as they don't have access to technology, finance, talent and knowledge.

To pilot the CIC model, NInC selected 7 industry clusters, while trying to maintain geographic and sectoral diversity. The initiative has been a Public-Private-Partnership (*PPP*), with NInC helping to seed the CIC in the clusters and the local industry body pitching in resources to sustain the CIC.

The uniqueness of the model has been engaging with local industry (*both formal and informal*) in the MSME cluster and using the CIC to act on behalf of the clusters for innovation management locally and to act as a focal point for initiatives. This model, with minimal or zero incremental investment from all partners, has proven that innovation can happen easily in a collaborative way.

Over a period of 24 months, 39 institutions have joined hands for various initiatives in these pilots and have shown promising results.

- Indicator**
- Location
  - Example Innovation Activity
  - No. of Projects
  - Expected Benefit



**Maharaja Sayajirao University (MSU), Baroda**



## Auto Components

- Faridabad, Haryana
- Entrepreneurship Facilitation Cell
- **3 Projects**
- Complete hand holding of entrepreneurs



## Life Sciences

- Ahmedabad, Gujarat
- Technology transfer from R&D institutions
- **2 Projects**
- New products



## Ayurveda

- Thrissur, Kerala
- Standardization of Nishakathakadi Kashayam
- **2 Projects**
- Standardization leading to acceptance in export market



## Furniture

- Ernakulam, Kerala
- Furniture Design hub
- **3 Projects**
- Improved product portfolio



**Delhi University, New Delhi**



## Brassware

- Uttar Pradesh
- Efficient design for Coke based furnace
- **5 Projects**
- Increased income of artisans



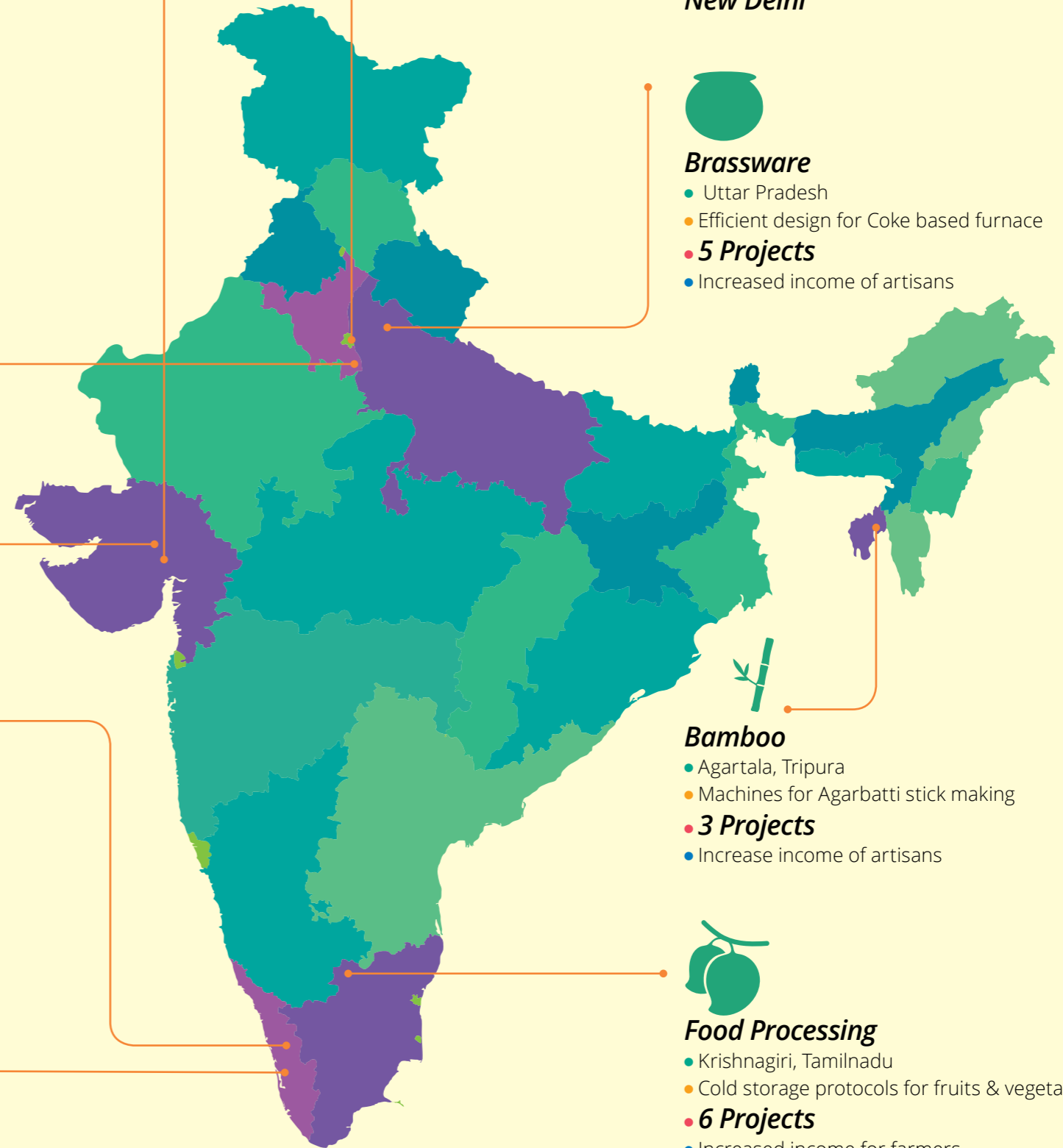
## Bamboo

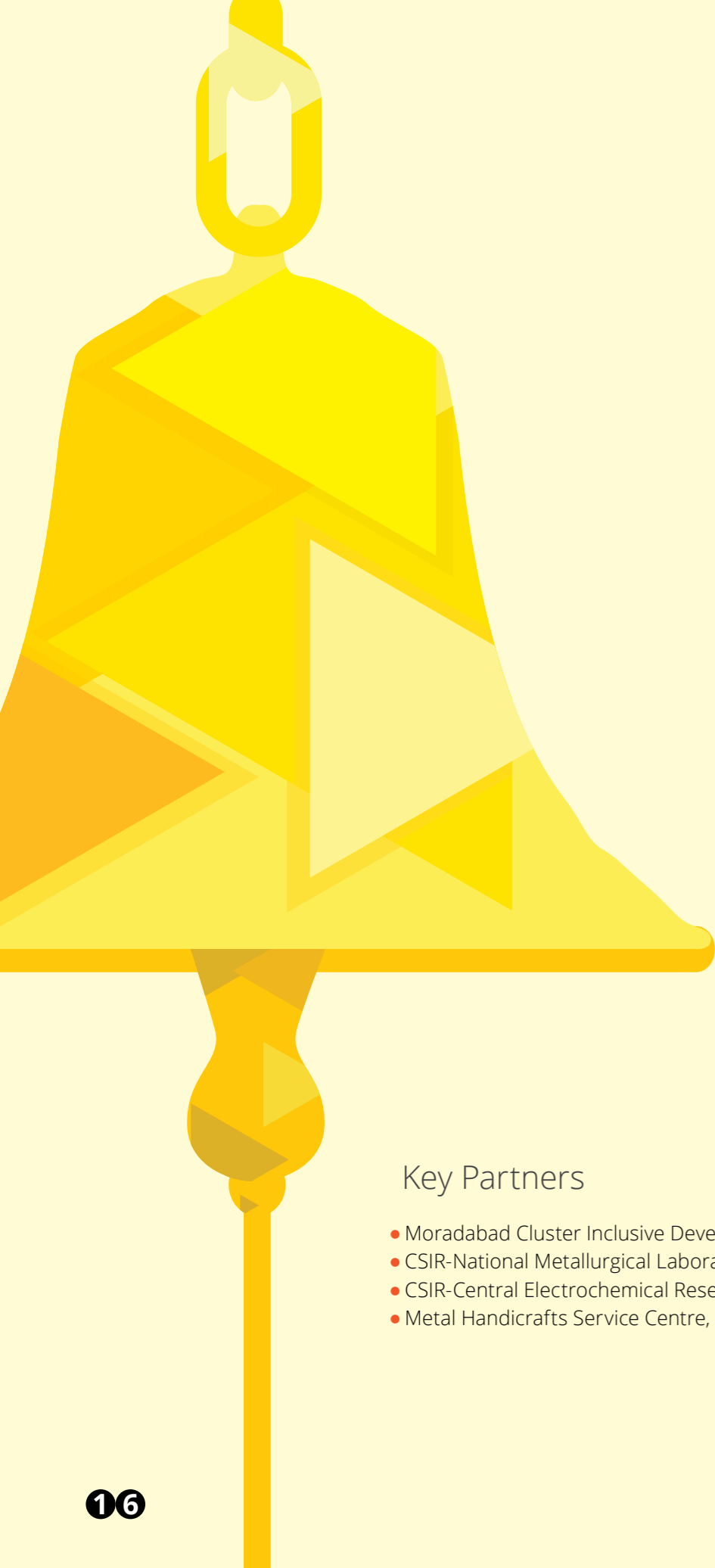
- Agartala, Tripura
- Machines for Agarbatti stick making
- **3 Projects**
- Increase income of artisans



## Food Processing

- Krishnagiri, Tamilnadu
- Cold storage protocols for fruits & vegetables
- **6 Projects**
- Increased income for farmers





## Brassware Cluster

Moradabad, Uttar Pradesh



Moradabad, Uttar Pradesh

Location



Brass Artifacts

Products



Moradabad Cluster Inclusive Development Society

CIC Host



3,50,000

Employees



29,000

Business Units



₹ 2,500 Cr

Turnover

### Key Partners

- Moradabad Cluster Inclusive Development Society
- CSIR-National Metallurgical Laboratory, Jamshedpur
- CSIR-Central Electrochemical Research Institute, Karaikudi
- Metal Handicrafts Service Centre, Moradabad

## Example Innovation: Redesign of Century Old Furnace

CSIR-NML has designed a new furnace with reduced fuel consumption, reduced pollution yet higher productivity compared to the existing furnace used in the Brassware cluster. This design technology has hence been transferred by CSIR-NML to a local enterprise in Moradabad for full percolation within the cluster.

### Impact



Impact on Per Capita Income of Artisan

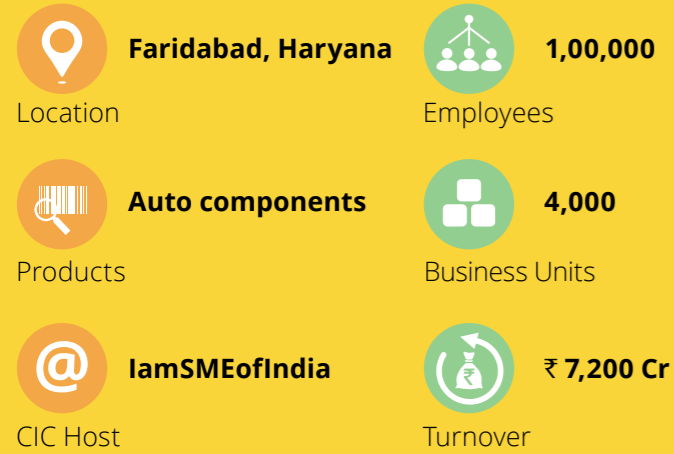
Before  
₹ 7,500/-

After  
₹ 15,000/-

With an additional investment of INR 4,000/- doubling of artisan income

# Auto Component Cluster

Faridabad, Haryana



## Key Partners

- IamSME of India
- CSIR-Central Mechanical Engineering Research Institute, Durgapur
- Manav Rachna International University, Faridabad
- Department of Industries, Govt. of Haryana

## Tod-Fod-Jod Centre at local University

*The Tod-Fod-Jod centre at Auto Components cluster, Faridabad has been able to provide multiple low-cost automation solutions to MSMEs with the help of students of the Manav Rachna International University.*

*The local industry defines the problems, as seen on their shop floor, and students, faculty collaborate with industry to find a suitable solution.*



## Impact

*Demand driven solutions for industry problems*



*14 low-cost automation solutions*

# Ayurveda Cluster

Thrissur, Kerala



Thrissur, Kerala

Location



20,000

Employees



Ayurvedic medicines,  
Cosmetics

Products



540

Business Units



CareKeralam Ltd.

CIC Host



₹ 225 Cr

Turnover

## Key Partners

- CArE Keralam Ltd.
- CSIR-National Institute of Interdisciplinary Science & Technology, Trivandrum
- Kerala Agricultural University, Thrissur
- Kerala Industrial Infrastructure Development Corporation, Govt. of Kerala

## Standardization of Nishakathakadi Kashayam

*CARe Keralam has been able to standardize both the formulation and production process of a traditional Ayurvedic drug for diabetes. As a result, the drug will now be suitable for quality certification and open new opportunities for the MSMEs in the region.*



## Impact

Access to  
**multimillion dollar**  
export market



# Innovations in Agrabatti Manufacturing Process

Over the years, local ingenuity has given rise to innovations which reduce the effort needed in stick making for the Agrabatti industry. However, these local innovations have remained unknown to the 2,00,000 odd artisans in Tripura. Tripura Bamboo Mission (TBM) has helped stitch together a new improved process using these innovations and has trained 2,500 master artisans on the process.

## Bamboo Cluster Agartala, Tripura

 <b>State of Tripura</b> Location	 <b>2,20,000</b> Employees
 <b>Agarbatti (incense sticks), furniture</b> Products	 <b>50,000</b> Business Units
 <b>Tripura Bamboo Mission</b> CIC Host	 <b>₹ 73.67 Cr</b> Turnover

### Key Partners

- Tripura Bamboo Mission, Govt. of Tripura
- CSIR- Central Institute for Medicinal & Aromatic Plants, Lucknow
- CSIR- Central Mechanical Engineering Research Institute, Durgapur
- National Institute of Technology, Agartala

## Impact



Improvement in productivity





## Food Processing Cluster

Krishnagiri, Tamil Nadu



Krishnagiri, Tamil Nadu

Location



2,50,000

Employees



Mango Pulp, Fresh Fruit

Products



73

Business Units



Krishmaa Cluster Development Society

CIC Host



₹ 700 Cr

Turnover

### Key Partners

- Krishmaa Cluster Development Society
- CSIR-Central Food Technology Research Institute, Mysore
- CSIR-National Institute of Interdisciplinary Science & Technology, Trivandrum
- Central Institute of Tool Design, Hyderabad
- Tamilnadu Agricultural University, Payyur

## Mango Storage and Shelf-life Extension

Short storage and shelf life of mangoes meant that export consignments could only be shipped by air; that too to nearby locations such as Japan or UAE. With technology support from CSIR-CFTRI, a trial consignment of 10 tonnes was sent to UK by sea for the first time from the Food Processing cluster, Krishnagiri and has shown very encouraging results.

### Impact



Before

₹ 12/-

Rate per kg



After

₹ 24/-

Rate per kg

**Doubling of price received by farmers from ₹12/- to ₹24/- per kg.**

# Pilot with Universities

Universities and other knowledge institutions such as R&D labs give birth to ideas and inventions, which could translate into incremental or disruptive innovations for industry and society at large. However, there is a felt-need for an effective interface and channel for this knowledge to be directed towards addressing a relevant need. Such application of knowledge and innovation in-turn could spur entrepreneurship; provide solutions to issues like healthcare, energy and others. NInC proposed the creation of Cluster Innovation Centre (CIC) in Universities as hubs that will actively seek avenues for application or co-development of knowledge with industry, other knowledge institutions and society at large.

**Two Universities viz. Delhi University and Maharaja Sayajirao University, Baroda came forward to pilot the CIC model. With support from NInC, the CICs in these institutions have taken up various activities that have enhanced their potential to collaborate with industry, other institutions, while also benefiting the students in learning industry-relevant skills.**

**Following the success of these two pilots; the Biotechnology Industry Research Assistance Council (BIRAC) has adopted this model for replication in 20 Universities during 2014-15**

## Delhi University, New Delhi



- Launch of new degree program on innovation; joint program with Jamia Millia Islamia (University)
- Collaboration with Defence Research & Development Organisation (DRDO) and industry bodies such as IamSMEofIndia, PHD Chamber of Commerce among others
- Community oriented projects with students seeking to solve real-world problems
- Programs to promote and fund innovations in affiliated colleges



## Maharaja Sayajirao University (MSU), Baroda

- Research based on industry demand and with their collaboration
- Pre-incubation support to entrepreneurs
- Collaboration with Association of Biotech led Enterprises
- Courses on Intellectual property, global standards and others to 'fill the gaps' for innovators



## Nurturing Innovation through Education

Recognising the fundamental role of education in nurturing and fostering an ecosystem of innovation the National Innovation Council is engaged in a series of initiatives to encourage innovations in existing educational institutions –

***Universities, colleges and schools, as well as promoting new educational models and innovative platforms for knowledge creation, dissemination and application.***

Some of the key initiatives taken up by the NiNC to nurture innovations through education are as follows:

- *Innovation Scholarships*
- *Innovation Centers in DIET*
- *Mapping of Local History, Ecology & Culture*
- *Meta University*
- *Design Innovation Clusters*
- *Tod Fod Jod*



# National Innovation Scholarships

NInC has proposed the introduction of National Innovation Scholarships to foster creativity and innovation amongst children. It is proposed to offer up to 1000 scholarships annually targeting students from classes 8<sup>th</sup> to 12<sup>th</sup> or children in the age bracket of 12 years to 17 years of age. Students from any background and affiliated to any Board of education recognised by the Government of India, or out of school children can submit their entry for the scheme.

The scheme will have a multiplier effect by getting parents and teachers to value creativity which in turn will spread a culture of appreciating innovation in the school system. These scholarships, under the Ministry of Human Resource Development, will be launched in late 2014.

## • For Idea Selection

A one-time award of ₹ 50,000 for an individual or ₹ 75,000 for a group of two to five children, five being the maximum number of participants per group. The cash award is intended to recognise the value of the innovative idea and to support the group in creating a working prototype. All awardees will also be invited for a regional workshop.



# 1000

## ANNUAL SCHOLARSHIPS

## • IPR

The innovating group will also be supported for the purpose of obtaining an Intellectual Property Right (IPR) for the idea by means of an amount of up to ₹ 100,000 towards reimbursement.



## • For Proof of Concept

An award of ₹ 25,000 (for a group) will be given upon successfully demonstrating the proof of concept, also the group will be provided an opportunity to showcase it at the National Innovation Showcase event.



The selected children will also be groomed and nurtured at regional workshops to make them understand the innovation value chain. Regional workshops will also encourage young innovators to take their ideas to the next level, and will aim at connecting them to appropriate mentors. The National Innovation Foundation, which has prior experience in conducting selection-cum-search process for young innovators, will be the nodal agency to operationalise this scholarship under the Ministry of HRD.



## Setting up Innovation Centre in DIET

An ideal opportunity exists in re-imagining the District Institutes of Education and Training (DIETs) as hubs for promoting innovation and Creativity. This will make teachers value creativity and foster the spirit of innovation among their students. NInC has proposed creating an Innovation Centre in each DIET.

A District level Innovation Centre will pool in the best teachers in Mathematics, Science, and Social Sciences to lead innovation in the schools of their district. They will develop modules for teacher education, spot talent, improvise on curricula for innovation-promoting activities. DIETs must also provide for taking in part-time faculty to involve local talent in teacher training - creative artists, retired award winners from the teacher category and so on.

As part of NInC's efforts, the **Guidelines for the Centrally Sponsored Scheme on Teacher's Education have detailed steps on re-positioning of DIETs in the country. As part of the guidelines it has also been agreed to develop Resource Centres in each DIET which could also double up as Innovation Centres.**



## Mapping of Local History, Ecology and Culture

To create critical consciousness among students about their local economy, ecology, history and cultural heritage, it is proposed that one week each year should be designated for learning from “society” as against learning “within the classrooms” from teachers. The initiative will drive the local discovery of “jal, jangal, zameen” by students based on observation.

For example, students of Class 9<sup>th</sup> may be engaged in an exercise of 'Aas Paas ki Khoj'. The students will be assisted by a volunteer teacher, and follow a structured format as they undertake a tour of the village around the school. The students could piece together local history, ecology, biodiversity and cultural heritage.

The greater value of the exercise lies in its ability to create societal engagement for students and gives them an understanding of their rootedness in their local context. The pedagogic value of the exercise is in reinforcing a notion that sources of learning can be village elders, local crafts persons, local medicine practitioners, traders in markets, socially and culturally disadvantaged groups and so on.

***The Ministry of Human Resource Development has approved the mapping exercise as part of the Rashtriya Madhyamik Shiksha Abhiyan (RMSA) scheme.***

## Setting up a Meta University leveraging the National Knowledge Network

India pioneered the idea of the university with Nalanda and Taxila to explore a life of the mind and undertake an exploration of ideas. Today India is poised to reinvent the University of the 21<sup>st</sup> Century as a new adventure of cross-cutting ideas facilitated by technology.

Technology today offers unprecedented opportunities to “disrupt the classroom” as traditionally understood, provide for individualised and customised learning and radically alter pedagogic systems to move towards collaborative and multi-disciplinary learning.

Seizing these new opportunities and leveraging the platform of the National Knowledge Network, the National Innovation Council has put forward a proposal to create the first Meta University. The basic idea of a Meta University as a collaborative platform where a network of Universities offers students a customised learning experience is eminently applicable in the Indian context.

The National Knowledge Network (NKN) initiated by the National Knowledge Commission, is already being implemented to connect all our universities, research institutions, libraries, laboratories, hospitals and agricultural institutions across the country with a high speed (multi gigabit) fibre based, broadband network. Currently, 1182 institutions are connected on the NKN.

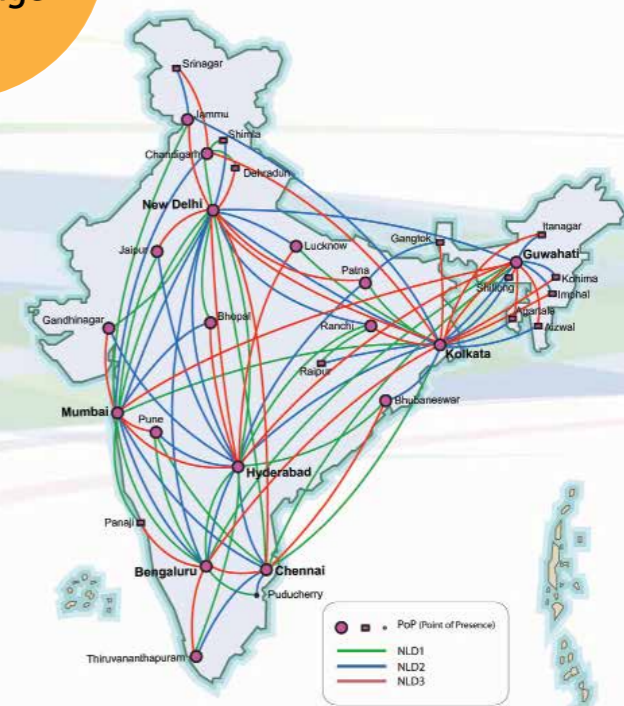
The Meta University riding on the NKN envisages a collaborative and multi-disciplinary learning platform, where students enrolled in a primary college or university will be able to take courses available in other universities and colleges. This would allow students, with the help of mentors, to customise their learning experience and select options from a wide menu of choices, leveraging the specialisation of individual institutions. It will therefore be possible for example, for an engineering student from the Indian Institute of Technology, Kanpur to also enrol for a course in ancient history from Jawaharlal Nehru University; or for a mathematics student from the Indian Institute of Science to pursue a course in comparative literature from Jadavpur University.

# 1182

## INSTITUTIONS ARE CONNECTED CURRENTLY THROUGH NKN

The Meta University will reinterpret the concept of a University as not just a traditional, physical space of learning, but as a repository of knowledge and information that can be delivered in multiple ways, and can be accessed from anywhere and anytime. It will seek to enhance the learning experience through new and innovative delivery models of education that allow students and institutions to collaborate in unprecedented ways. The National Innovation Council is working closely with the Ministry of Human Resource Development and other stakeholders to shape this initiative.

**NKN**  
National  
Knowledge  
Network



**Under the guidance of the Ministry of Human Resource Development, a Meta University has been established in Delhi with the participation of Jawaharlal Nehru University, Jamia Milia Islamia, Delhi University and the Indian Institute of Technology, Delhi. Meta Universities are proposed to be set up in Kolkata, Pune and Hyderabad as well.**

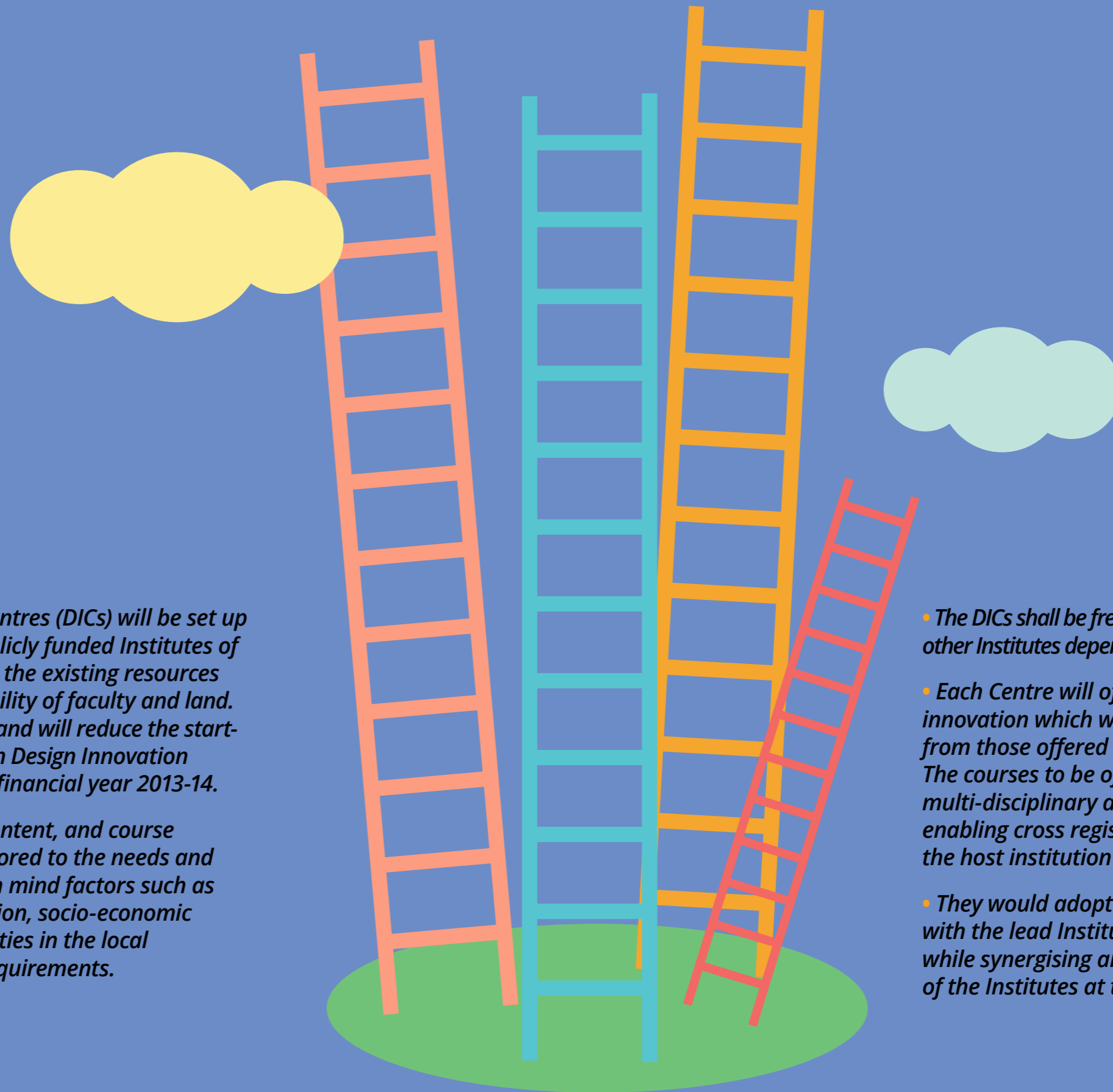
# Innovation in Design Education

Design is a key element of the innovation process and will be critical for driving innovation in the new knowledge economy. Design-driven innovations can ensure sustainable competitive edge, enhance industrial productivity and also address crucial challenges by harnessing design thinking for needs-based solutions.

## Design Innovation Centres

In this context, NInC had suggested a model of setting up Design Innovation Centres in twenty locations to be included in the 12<sup>th</sup> Plan for consideration by the Ministry of Human Resource Development. These could be through co-location in campuses of national repute to ensure maximum convergence, optimum utilisation of existing resources and infrastructure, and to leverage a context of academia-industry interaction. The National Innovation Council is working closely with the Planning Commission and Ministry of Human Resource Development (MHRD) to create a concept paper on design education, which emphasises a “Hub and Spoke” model for the Design Innovation Centres and envisages inter alia that –

- *Some of the Design Innovation Centres (DICs) will be set up by co-locating them in existing publicly funded Institutes of national repute to optimally utilise the existing resources and to address the issue of availability of faculty and land. This would also help in networking and will reduce the start-up time. MHRD has approved 5 such Design Innovation Centres to be set up in the current financial year 2013-14.*
- *The mandate, structure course content, and course design, shall be innovative and tailored to the needs and requirements of the DIC, keeping in mind factors such as the existing institution’s core function, socio-economic challenges, opportunities and realities in the local geographic region, and industry requirements.*



- *The DICs shall be free to network and partner with other Institutes depending upon their area of work.*
- *Each Centre will offer courses in design and innovation which will be unique and different from those offered by individual departments. The courses to be offered by Centre will be multi-disciplinary and participatory in nature enabling cross registration of courses at both the host institution and the DIC.*
- *They would adopt a “Hub and Spoke” model with the lead Institute acting as the mentor while synergising and leveraging the potential of the Institutes at the field level.*

## Open Design School

NInC has also proposed that an Open Design School (ODS) be set up to provide free access to design education and learning material for all and is working with MHRD to realise this. ODS would be a technologically forward looking and responsive centre for design innovation and research, as a unique model of trans-disciplinary and collaborative education that encourages community participation.

Apart from being a multi-disciplinary design school itself, ODS would follow the Open Courseware model, whereby design courseware would be uploaded and shared on the web, ensuring free access to learning material (*which would include video lectures and transcripts, sample student projects, recommended reference material, etc.*). ODS would support trans-disciplinary and collaborative learning—enabling design students at ODS to take their classroom projects into a collaborative mode or turn them into live projects in the field—by working together with students and faculty from other design schools, academic institutions, social or governmental bodies, industry or NGOs. Such an approach has the potential for tremendous social impact, as classroom projects are transformed into actual implementable solutions, through the inclusion of qualified professionals and organisations in the project team, and through collaborative problem solving.

## The National Design Innovation Network

The National Design Innovation Network (NDIN) is envisaged as a network of design schools that would work closely with other leading institutions of industry, academia, NGOs and government to further the reach and access to design education, and would be open for interaction with the general public.

Students would be able to use this network to access other academic disciplines, industry and policy making bodies to broaden the scope of their university education and go beyond the limitations of their prescribed curricula. For example, a student of textile design with interest in animation could sign up for open electives in a partner animation film school to learn the fundamentals of animation; or an exhibition design student could actively pursue his/her passion for history by jointly engaging with students of history from Jawaharlal Nehru University in co-creating an exhibition space on Indian folk music traditions.

ODS and NDIN will leverage the National Knowledge Network (NKN) to connect various design, academic, research and governmental organisations and individuals to build a virtual community of design experts, resources and new business models for the future.

The Ministry of HRD along with NInC, Planning Commission and different Central Institutions, prepared a concept note on establishment of Design Innovation Centres. Based on this concept paper, a draft EFC Memo for setting up of 20 Design Innovation Centres, One Open School of Design and National Design Innovation Network during 2013-14 to 2016-17 at a total cost of ₹ 241.20 crores is under finalisation. In the first phase, it has been prepared to set up 6 DICs during 2013-14. Out of which 5 Institutions for setting up of DICs have been identified. These are IIT- Bombay, IIT-Delhi, IIT-Guwahati, IISC-Bangalore, and University of Delhi.

## Igniting Youth Innovation with Tod Fod Jod Centres

To foster innovation at an early stage and to create an innovative mind-set in the youth, NInC has proposed the creation of Tod Fod Jod (TFJ) Centres in schools and colleges.

***NInC has conducted several TFJ sessions in selected schools and feedback from the students highlights a complete change in their perception of machines and devices. They have become more curious and inquisitive – critical for nurturing an innovative mind-set. Such sessions make learning fun and interactive, and therefore are likely to be remembered, applied and utilized in the future.***

NInC is also providing mentoring support to various States for the implementation of the TFJ initiative. Discussions are also underway with the Ministry of Human Resource Development for incorporation of TFJ efforts into the current education system through various mechanisms.

## TOD FOD JOD Concept

- Foster innovation at an early stage
- Provide a hands-on learning environment



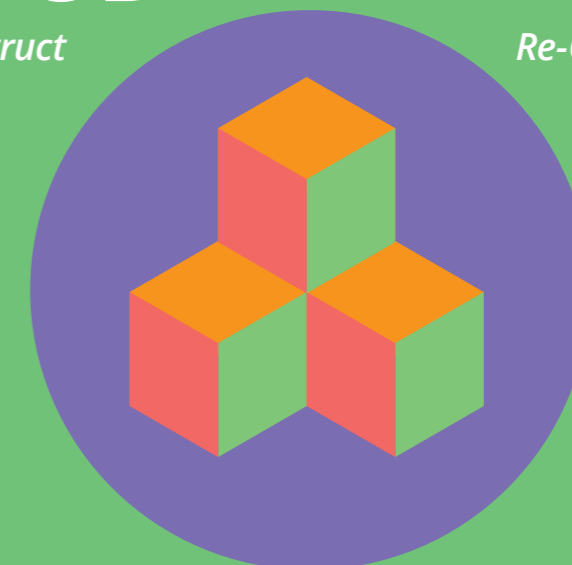
### TOD FOD

*De-Construct*



### JOD

*Re-Construct & Repair*

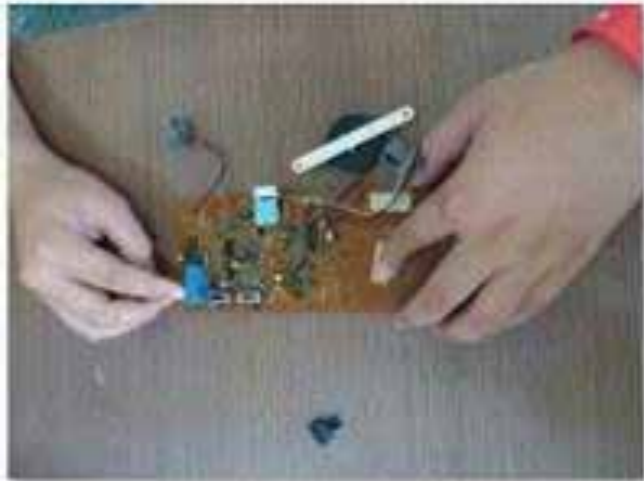


### JOD

*Re-Purpose & Create*



TOD FOD JOD





## TOD FOD JOD Scale and Spread



Locations

**NCR, VADODARA  
& KARNATAKA**  
**3**  
Urban District  
**9**  
Rural District



Duration

**2**  
Months to  
**9**  
Months



Mentors

**176**



Schools

**119**  
Government &  
Private



Students

**4237**



TFJ Sessions

**141**  
Average Session of  
**3**  
Hours

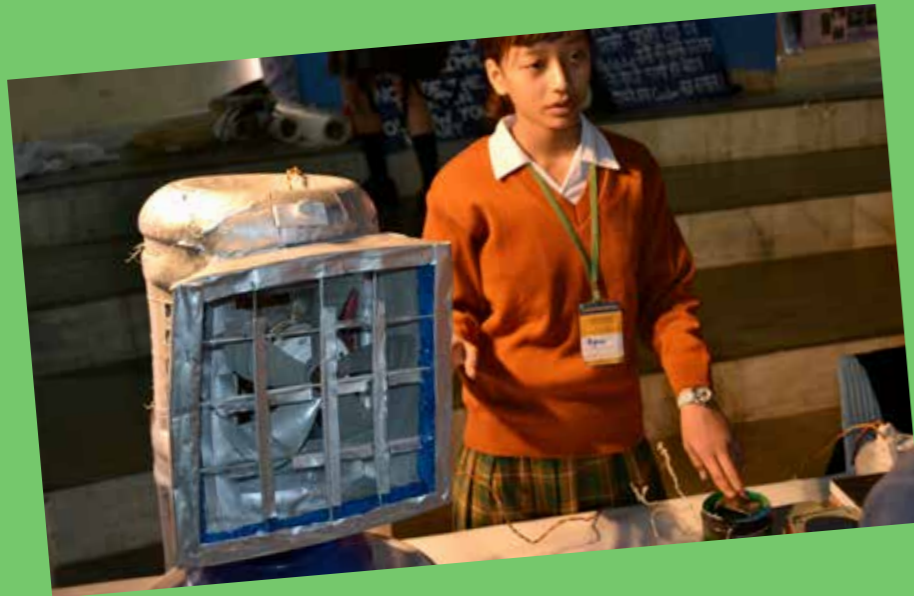
## TOD FOD JOD Karnataka

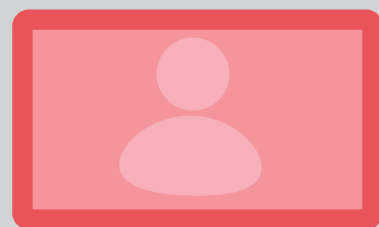
- State Innovation Council and State Education Department joined hands
- NInC trained meta-mentors (20, from DIETs and Agastya Foundation)
- Meta-mentors trained mentors (130 teachers and Agastya volunteers)
- TFJ school sessions (77 in two months, covering 3,500 children in 50 schools, including 40 government schools)
- Typical session is of about 3 hours

## TOD FOD JOD Impact

- Children developed interest in study
- Explore beyond the text-book
- Enhanced team-effort
- Enhanced student-teacher relationship
- Make learning an applied experience
- Parents happy with children's improved academic performances

# National Innovation Council's Tod Fod Jod Delhi-NCR Mela 2013, New Delhi





Connecting People  
for Innovation through

## Rural Broadband

## Connecting 2,50,000 panchayats

To accelerate the reach of connectivity and to enhance development and innovation at the grassroots, NInC has followed up on the Government's proposal to provide optic-fibre based broadband connectivity to 250,000 panchayats in the country, which are at the core of governance and service delivery at the last mile. The aim is to not only leverage this connectivity to improve service delivery by bringing in due transparency and accountability, but also to provide a platform for collective solution building and knowledge sharing for local populations through relevant applications and an associated ecosystem. To understand the needs of such an ecosystem and generate a corpus of field tested evidence, NInC worked with the Government of Rajasthan on the E-Panchayat Experimental Sites (EPES) initiative.



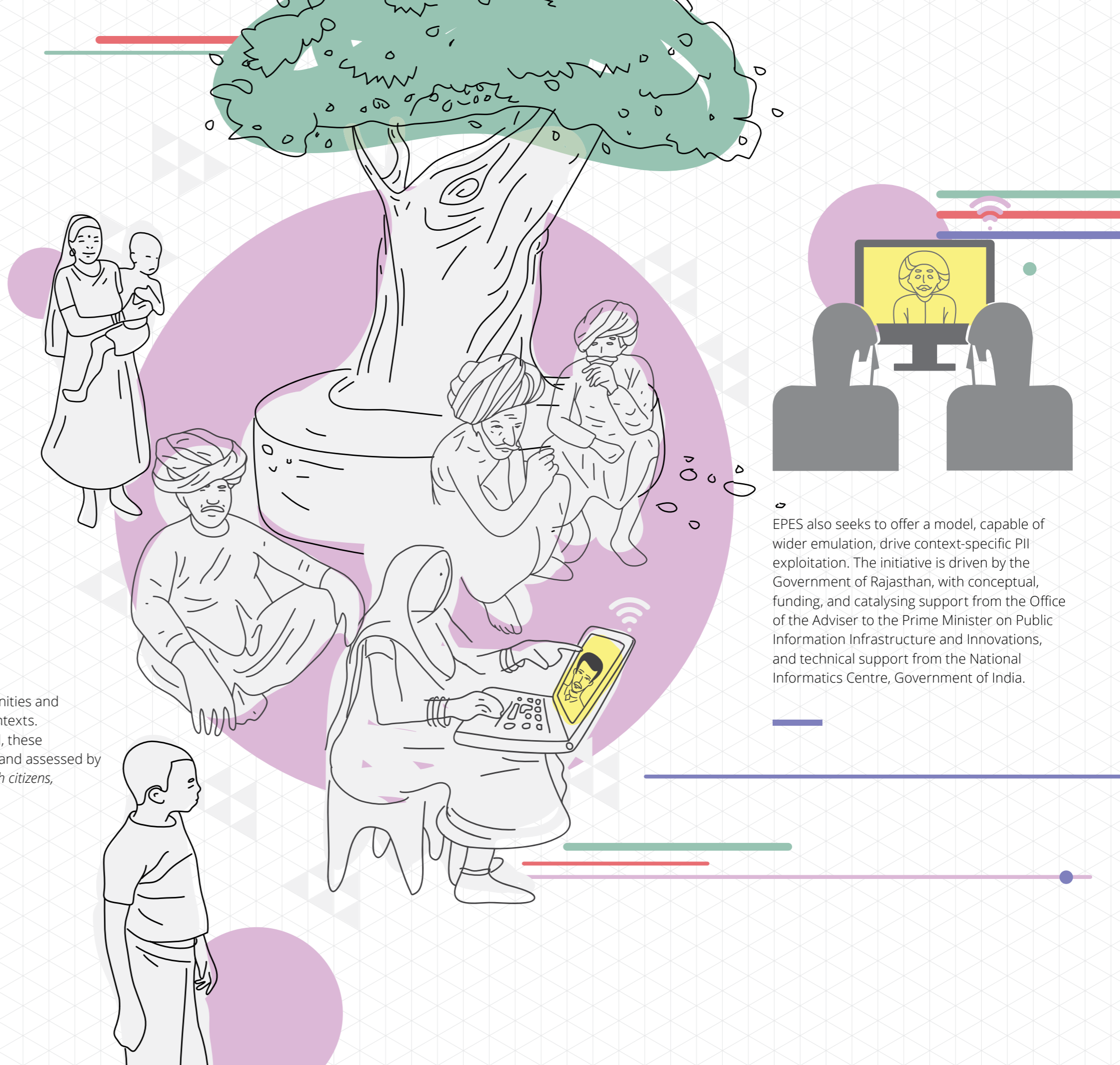
# Connecting People for Innovation through Rural Broadband

## Introduction

In a span of two years, Government of India's Public Information Infrastructure (PII) programme will provide rural citizens and decision-makers at panchayat, district, and state levels with the transformational power of panchayat broadband connectivity. However, to make the best of this capacity it is essential to assist panchayat communities and decision-makers to drive adoption and usage of panchayat broadband. Unless fully adopted, panchayat broadband can neither democratise information, nor drive accountable government.

***The E-Panchayat Experimental Sites (EPES) initiative pioneered by the National Innovation Council seeks to bridge this gap by generating a corpus of practical, field-tested strategies on driving community and institutional adoption of panchayat broadband.***

These will be designed for the use of panchayat citizens, communities and government decision-makers, and relevant to local operating contexts. Importantly, to ensure that these strategies are practically useful, these strategies will be evidence based – evaluated in field conditions, and assessed by qualitative research (including interviews and group discussions with citizens, communities, and officials).



EPES also seeks to offer a model, capable of wider emulation, drive context-specific PII exploitation. The initiative is driven by the Government of Rajasthan, with conceptual, funding, and catalysing support from the Office of the Adviser to the Prime Minister on Public Information Infrastructure and Innovations, and technical support from the National Informatics Centre, Government of India.

# Establishing the Trials

Initially ten panchayats within District Ajmer, Rajasthan were identified as EPES: Aradka, Babaicha, Badlia, Chachiawas, Kanpura, Makadwali, Ramsar, Sanod, Shrinagar and Tihari. It then explored four different aspects, broadly falling within the domains of supply (or service and capacity provision) and demand (or community adoption):

## Service Provision: Technical Capacity

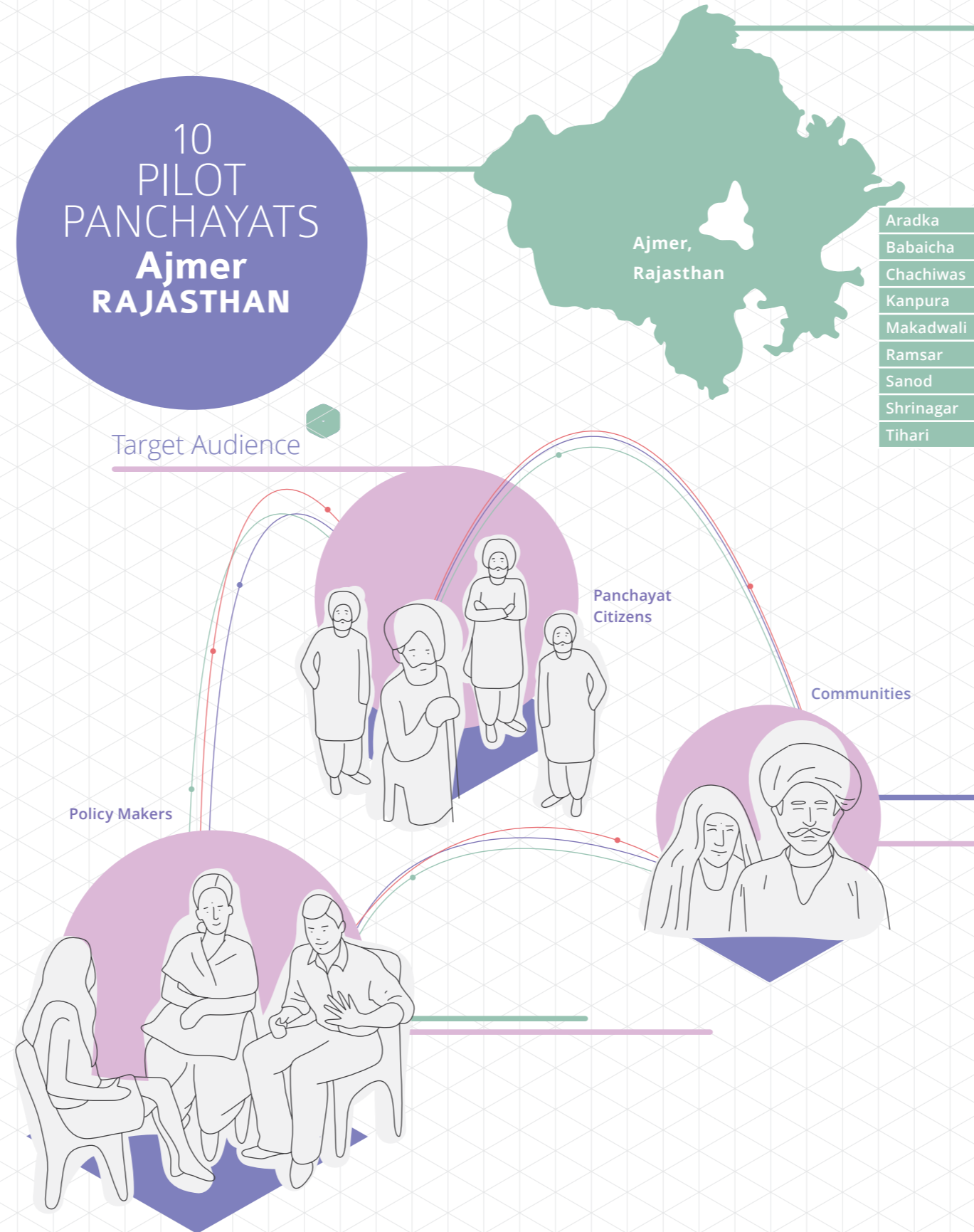
The project examined the question of ICT capacity at panchayats: given optical fibre connectivity, what level of capability would be needed to effectively address government, community, and citizen requirements at the panchayat? Do existing initiatives (applicable to the pilot locations) address the demand profiles that either currently exist – or that could emerge, given panchayat broadband potential?

## Service Provision: Human Capacity

The inquiry also examined the extent to which e-panchayats' human resources matched service requirements and demand profiles. To what extent were panchayats' existing staffing capable of meeting ICT needs of citizen? How were the questions of capacity building, training, and skill upgrades addressed? How actively were panchayat staff involved in helping citizens engage and exploit ICT capacities?

## Service Provision

Applications and Capability (Governance, Core, Domain). A range of applications have already been developed by the Government of Rajasthan and the Government of India, along with National Informatics Centre units at both State and Centre. The EPES trials sought to deploy these in three areas namely – core government, education, and healthcare – and



examine the dynamics of service delivery. While a significant number of e-governance trials have already been launched; there is very limited experience of publicly-funded, government-provided, ICT-enabled service delivery – and community adoption – at the level of the panchayat itself (particularly at the time when the EPES trials were proposed). This owes largely to the lack of any kind of connectivity at the panchayat level, prior to the PII initiative's conception. EPES maintained a particular focus on this question.

## Demand Side: Community Adoption Capacity and Behaviour

The dynamics of community adoption of ICT-enabled applications and services are a crucial focus area. An emphasis is laid on the manner in which community-embedded workers (such as Auxiliary Nurses Midwives (ANMs) and General Nursing and Midwifery (GNMs), school teachers, panchayat officials, and – crucially – citizen volunteers) use ICT capacities placed at their disposal; this is initially monitored, with interventions later brought in (and experimented with) to work around challenges that emerged.

**Baseline qualitative studies were conducted across ten sites; following which – once infrastructure was established – services were established; service models assessed, evaluated and refined; and community adoption and usage of services monitored.**

The EPES initiative is overseen, managed, and driven by the Government of Rajasthan: via a Secretary-level Project Guidance and Review Group, for broad oversight; an Executive Committee chaired by Secretary Panchayati Raj and convened by the State Informatics Officer, NIC-Rajasthan, for active management and formulation; and a District-level Field Operations Group chaired by the District Collector Ajmer, for field-level implementation and decision-making.

The technical component of an E-Panchayat Field Service Unit model specification was formulated and developed .

Further, the manpower component of such a service unit model was also developed, designed to enable stable, reliable services through a group of well-qualified, well-trained staff who can form the basis of a community-engaging e-panchayat.



*A knowledge base is also being developed around effective community engagement strategies; a community engagement model built on citizen volunteers (known as 'IT Saathis') has been proposed, and will shortly be evaluated at the locations.*



# Inspiring Imagination

for Innovation Broadband

***The National Innovation Council has been encouraging the use of prizes, challenges, new media, innovation spaces and crowdsourcing as tools for promoting innovation.***

### ***Innovation Spaces***

NInC has created a ten point program for creation of Innovation spaces at Science centres, which includes various sections on innovations, innovators, innovation challenges, gadget technology, emerging technologies, and showcasing innovation programs and ideas from the Government and Industry.

### ***Crowd Sourcing***

NInC has been experimenting and showcasing ways of leveraging the power of networks, crowd sourcing and social media to bring communities together to discuss debate and explore solutions to a variety of challenges.

### ***Hackathon***

NInC in collaboration with the Planning Commission organised the first ever Hackathon by the Government of India to help percolate the vision for the nation as envisaged by the 12<sup>th</sup> Five Year Plan. A Google Hangout, which discussed the 12<sup>th</sup> Plan, was watched by several lakh people across the world via internet and television.

### ***Anti-Drudgery Challenge***

The first challenge launched by the National Innovation Council sought innovative ideas in the areas of design improvement of work implements, better processes, new equipment and techniques for different occupational groups like blue-collar workers, street-vendors, and construction workers.

### ***One MP - One Idea***

The 'One MP-One Idea' leverages the power of India's people through their chosen representatives. This competition will generate and select ideas by galvanizing all constituencies through the Members of Parliament (MP).

# Innovation Spaces at Science Centres

Science Centres across the country have a great potential as instruments and agents of percolating scientific temper, innovation, and therefore socio-economic development. NInC has recommended creation of Innovation spaces at Science centres.



## Hall of Fame: Innovations

Showcase 10 innovations/discoveries in various domains, with focus on Indian/local innovations (for example: Transistor- ICs, Wireless - Telecom, DNA- Genetics, etc.)

## Hall of Fame: Innovators

Present life stories of 5-10 innovators in various domains (for example: C V Raman, Albert Einstein, Marie Curie, recent Nobel laureates, etc.) with special focus on Indian innovators.



## Innovation Challenges for a Better Tomorrow

Present 3-5 (innovation) Challenges we face today, with focus on Indian/local challenges (for example: health, climate change, energy, water, food security, etc.)



## Local Innovations and Traditional Knowledge

Present 3-5 local innovations and showcase ideas/applications of traditional knowledge (for example: Ayurveda, traditional water harvesting, traditional architecture, etc.)



## Gadget Technology

Communicate the science and technology behind gadgets of daily use (for example: computers, washing machines, electric stoves, refrigerators, etc.)



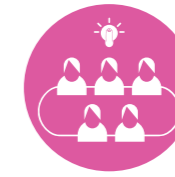
## Industry Sponsored Section

Create a section run by prominent/local industry, showcasing the technology they use in their industry (for example: mining industry, petroleum industry, auto industry, etc.)



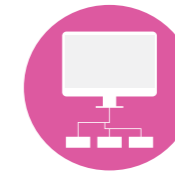
## Innovation Programmes of Government

Showcase programmes and schemes of Central and State Governments promoting, supporting and fostering innovation (for example: National Innovation Council; programmes of DST, DBT, DSIR -TePP, OSDD, TKDL; National / International Innovation awards)



## Annual Festival of Innovation

Hold inspirational talks, interaction with young and local innovators, screening of special films/documentaries, contests and competitions inviting solutions for specific local challenges.



## Access to portals and online resource materials

Provide access to online resource materials and interesting portals such as the India Innovation Portal, India Biodiversity Portal, India Water Portal, India Environment Portal, etc. A dedicated space should be created where several internet connected computer terminals must be provided by the centre.



## Emerging Technologies

Showcase emerging technologies (for example: fuel cells, nanotech, green tech, etc.)



# Innovation Spaces at Science Centres



Students enjoy demonstrating their science projects

Volunteers engaged with students and helping them in their science projects



Award ceremony at Science City, Kolkata



Students engaged in Tod Fod Jod activities at the Innovation Hub



Students immerse themselves in the life and work of famous innovators in the Hall of Fame

## Progress

NInC's recommendations for science museums have been included in the 12<sup>th</sup> Plan as follows:

***"Digitisation of collections in all museums to facilitate accessibility through a virtual museum portals including 3D exhibits and virtual 3D tours; making museum websites more dynamic, interactive and social-media enabled to attract online participation; creation of innovation spaces in museums based on framework provided by the National Innovation Council"***

The National Council of Science Museums (NCSM) has already launched innovation spaces at Delhi, Mumbai, Guwahati, Bangalore and Kolkata. The National Innovation Council is now working with the Ministry of Culture, Planning Commission and NCSM to scale this initiative by introducing a new scheme under the 12<sup>th</sup> Plan.

# NInC's New Media Initiatives

The National Innovation Council has been a lead user, a driving force and a role model in establishing experiments in use of new media by the Government of India. NInC has been experimenting and showcasing ways of leveraging the power of networks, crowd sourcing and social media to bring communities together to discuss debate and explore solutions to a variety of challenges. NInC has tried various experiments as mentioned below, some of which were a global first and the some others a national first.

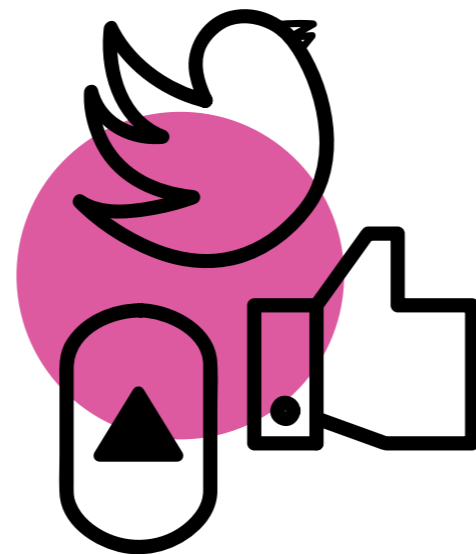
## Progress

NInC has established a strong presence on various new media platforms with a cumulative viewership of about a million a month. NInC is present on Twitter, YouTube, Facebook, Slideshare, Flickr, etc. NInC now regularly disseminates information and updates on various initiatives through these new media platforms.

NInC has organised several international Twitter conferences on subjects like 'Democratisation of Information', 'Innovation' and 'Mahatma Gandhi', which saw the participation of several thousand people from over 50 countries.

NInC in partnership with the Planning Commission, made efforts to disseminate and popularise India's 12<sup>th</sup> Five Year Plan through new media.

***This initiative entailed launching a Hackathon on the 12<sup>th</sup> Plan to crowd source communication ideas (applications, short films and visualisations) based on the 12<sup>th</sup> Plan, and also organising a Google Hangout Session to discuss the 12<sup>th</sup> Plan with various stakeholders.***

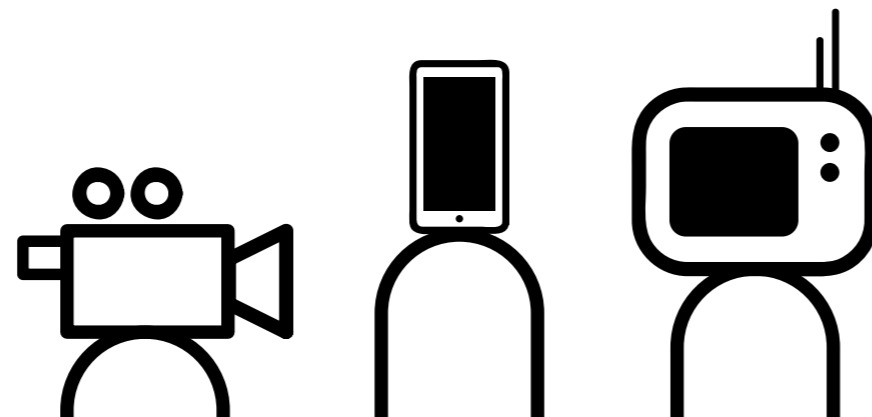


**1<sup>st</sup> EVER & LARGEST PUBLIC LECTURE OVER THE NATIONAL KNOWLEDGE NETWORK**

**4 LAKH+ STUDENTS**

**10 LOCATIONS 2 WAY**

**100+ LOCATIONS 1 WAY**



The **NATIONAL INNOVATION COUNCIL** and the **NATIONAL INFORMATICS CENTRE** bring to you  
The 1<sup>st</sup> National Knowledge Network Public Lecture Series

**SAM PITRODA** | **MICHAEL SANDEL**

*"Democratising Information, Justice, Equality, and the Rule of Law"*

**23<sup>RD</sup> January 2013** | **TIME: 10AM-11:30AM**  
[WWW.WEBCAST.GOV.IN/NKN](http://WWW.WEBCAST.GOV.IN/NKN) | **WEBCAST**

**PROGRAMME**  
Introduction by VC, Delhi University | Talks by Sam Pitroda and Michael Sandel | LIVE Q&A via NKN & TWITTER (@pitrodasam)

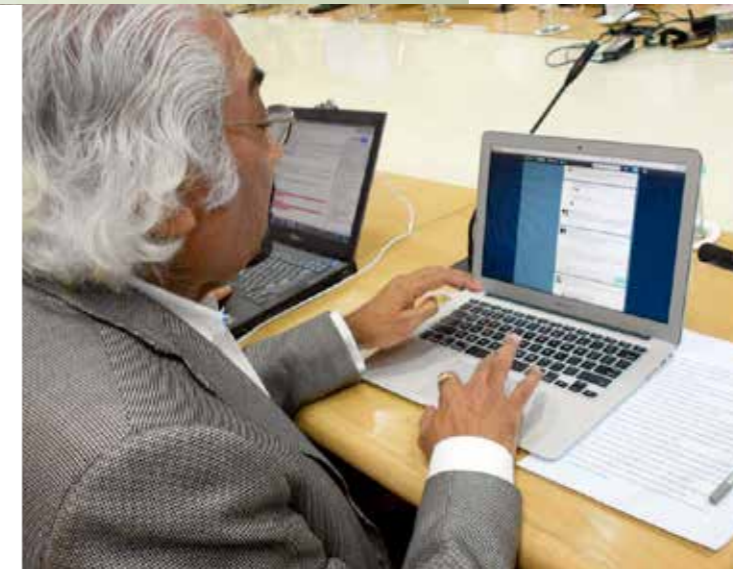
**SPEAKERS**  
**Mr. Sam Pitroda** is Adviser to the Prime Minister of India on Public Information Infrastructure and Innovation, Government of India.  
**Prof. Michael Sandel** is the author of *Justice: What's the Right Thing to Do?*, and *What Money Can't Buy*.

**Upto 500 institutions will be connected online!**

**NKN** The NKN, a multi-gigabit pan-India network, facilitates countrywide virtual classrooms, collaborative research, grid computing applications, virtual library, etc. amongst various universities, research and other knowledge institutions in India.

[WWW.INNOVATIONCOUNCIL.GOV.IN](http://WWW.INNOVATIONCOUNCIL.GOV.IN) | [WWW.NKN.IN](http://WWW.NKN.IN) | [WWW.III.GOV.IN](http://WWW.III.GOV.IN) for more details on the event.





This initiative helped the Planning Commission to establish its presence over various new media platforms, and is now leading to dedicated efforts on the part of the Planning Commission for regular dissemination of information and interactions via new media platforms.

NInC Chairperson, Mr. Sam Pitroda, addressed 10,000 teachers from more than 150 locations across India on education reforms by using the National Knowledge Network (NKN).



NInC also set up a Media Innovation Inquiry Group to develop a roadmap to indicate how a media innovation ecosystem for, and driven by, India's bottom 500 million citizens could be created. The Group has submitted its recommendations to the Council and these are under discussion.

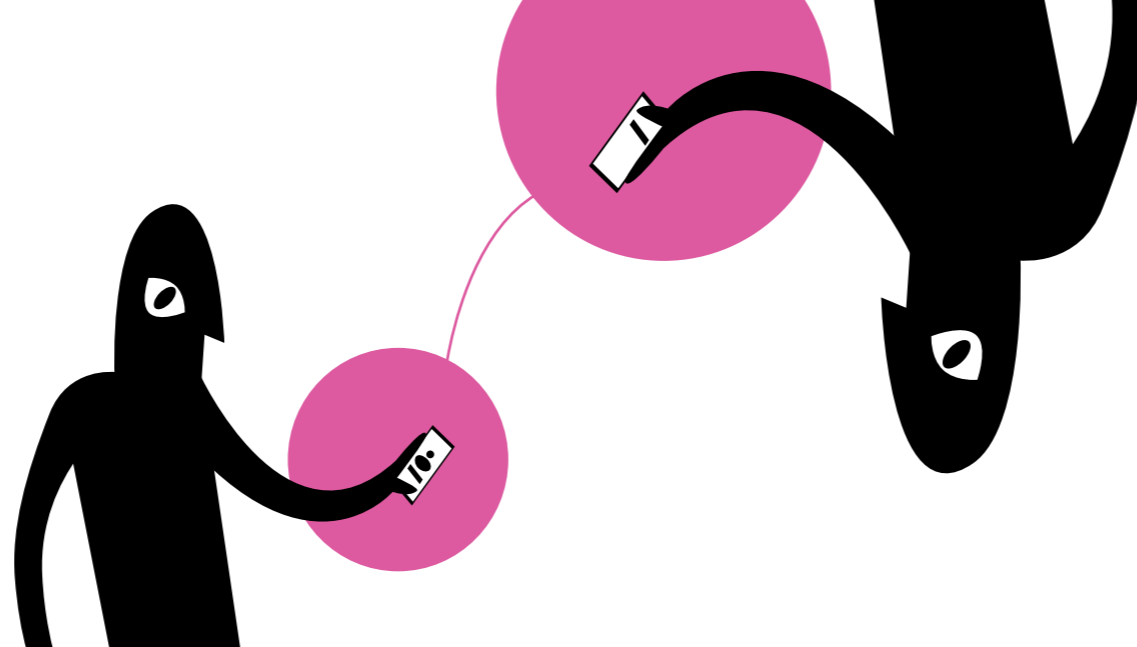
All the above have been first steps in engaging with interested stakeholders using new age tools and techniques. NInC will continue these efforts in the future and hope to make such interactions popular, more engaging and move towards crowd sourcing for 'action' rather than just 'ideas'.

## Crowd Sourcing Initiative 12<sup>th</sup> Plan Hackathon

NInC in collaboration with the Planning Commission of India organised the first ever Hackathon by the Government of India to help percolate the vision for the nation as envisaged by the 12<sup>th</sup> Five Year Plan. The Hackathon brought together professionals and enthusiasts from various walks of life, like programmers, graphic designers, user interface designers and others, to develop visualizations, short films and software applications based on the 12<sup>th</sup> Plan that could either showcase the impact of the plan or would support in achieving the vision that is envisaged by the plan.

The event was conducted on the 6<sup>th</sup> and 7<sup>th</sup> of April 2013, at 10 different locations simultaneously, with online participation also being an option for those interested. Data Portal India ([www.data.gov.in](http://www.data.gov.in)) provided the online platform for the event and educational institutions including Delhi University, IITs at Delhi, Kanpur, Kharagpur, Madras, IIIT-Hyderabad, IISc-Bangalore, TISS-Mumbai and University of Jammu came forward to open their campuses for the event. Along with the partners, a joint team of youngsters from both NInC and Planning Commission (PC) ensured the successful completion of the event.

A unique feature of this event was the extensive use of new media. The event kicked off on the morning of the 6<sup>th</sup> April with Dr. Montek Singh Ahluwalia, Deputy Chairman, PC and Mr Sam Pitroda, Chairman, NInC addressing the participants via the National Knowledge Network. Later in the day, experts from PC who had worked on the select sectors of the 12<sup>th</sup> Plan presented the overview of their respective sectors and answered questions from the participants via Google Hangout and Facebook.



*An estimated 10,000 people were spectators to the 32 hours marathon event as the entire interaction was open and online.*

### Progress

The winning entries have all been made freely available (*along with relevant source files*) for download under open licensing terms, accessible to anyone who wishes to use them. This is also a unique step towards encouraging the Open Source movement in all fields. In all, 220 entries were received and the details of the winners are available on [www.data.gov.in/hackathon/winners](http://www.data.gov.in/hackathon/winners).

**The initiative has paved the way for new ways of government-citizen engagement and crowdsourcing ideas using new media platforms.**



# Innovation Challenge to Reduce Drudgery

NInC is also using Grand challenges to inspire inclusive innovation. The first challenge launched by the National Innovation Council was a call for proposals launched in October 2011 to reduce the drudgery of the working class population.

*The challenge sought innovative ideas in the areas of design improvement of work implements, better processes, new equipment and techniques for different occupational groups like blue-collar workers, street-vendors, and construction workers.*

This went with the caveat that proposals should not be labour displacing.



480 Proposals Received

In 4 Months

6 Proposals Shortlisted



These proposals were sent by institutions and individuals from all backgrounds such as students, engineers, government officials, professionals, and teachers amongst others. The **6 winning innovations included a novel design of a rickshaw, a human powered motor, a display unit for street vendors, a low cost cycle for physically challenged, and devices to reduce the drudgery of construction workers and sanitation workers.**

The Entrepreneurship Development Institute of India, Ahmadabad (EDI) provided training to two finalists of the Anti-Drudgery Challenge, also helped them to convert their ideas into a business plan with support from the EDI faculty, provided them exposure through institutional visits and built their confidence to take up a social venture.



# Innovation Challenge to Reduce Worker Drudgery

Cycle For Physically Challenged

Ajith T. Alex, Aanand Ganesh, Mahesh P.V

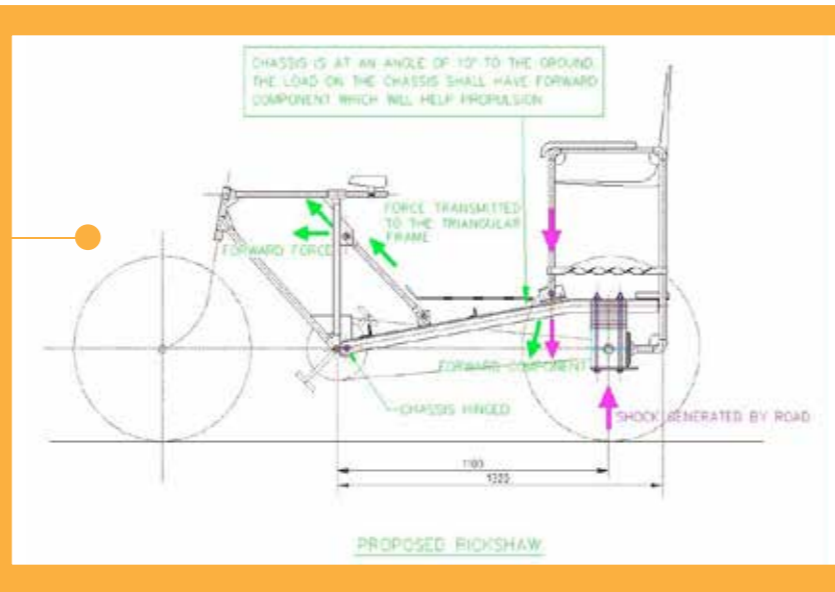


Vessel Desk for Construction Workers

Raghunath Pandurang Lohar

An Innovative Design of a Rickshaw

Pratik Kumar Ghosh



Picking Grab for Sanitation Worker

Jitendra Nath Das



HUMOTOR: A Humane Way of Utilizing Human Efforts

Dr. Sandipan Bandhopadhyay and team



Display Unit for Hawkers/ Street Vendors

Manjunath Butta



# One MP - One Idea

Indian democracy is hailed as one of the most successful political models around the world. Drawing inspiration from it, the 'One MP-One Idea' leverages the power of India's people through their chosen representatives.

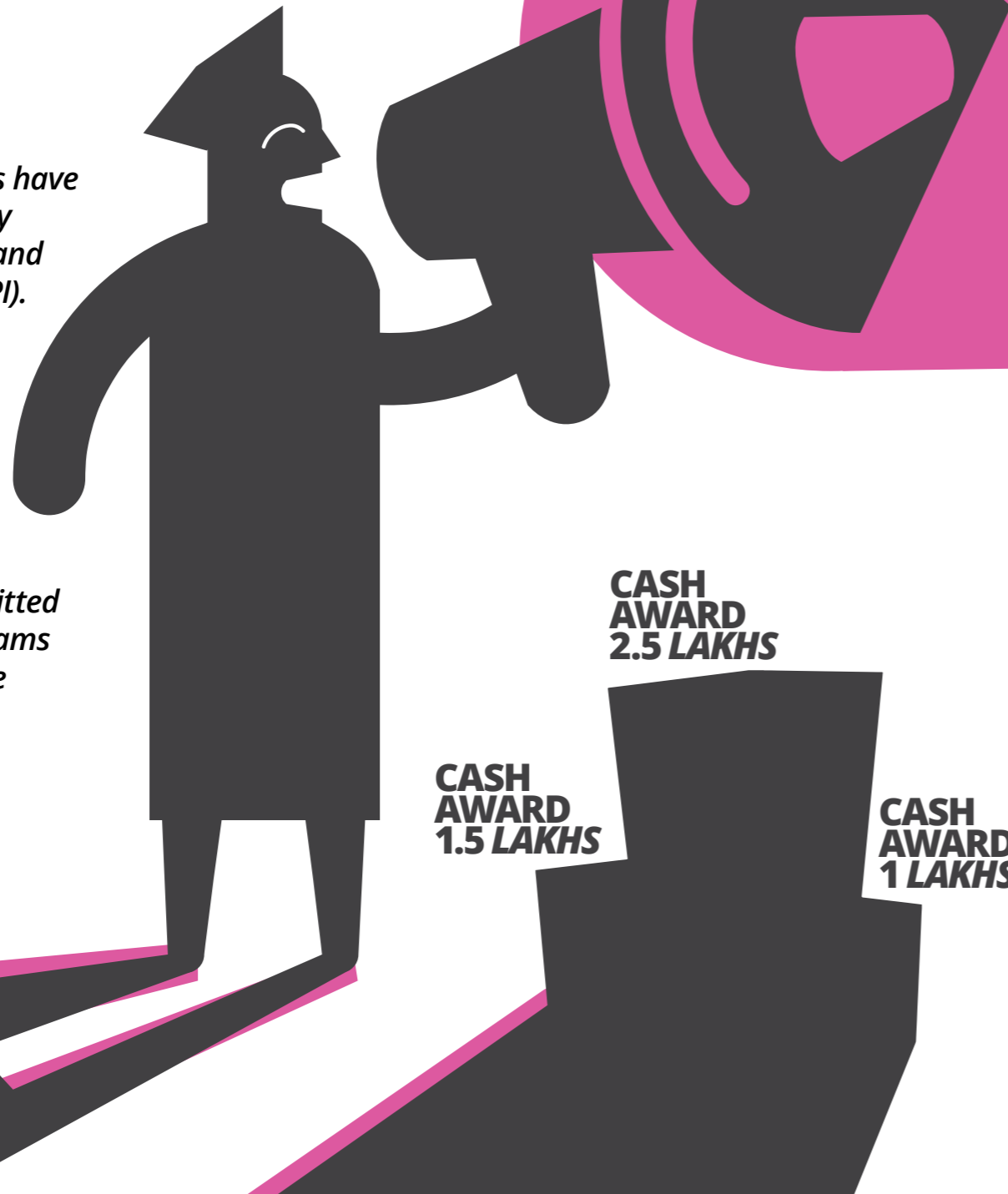
This competition will generate and select ideas by galvanizing all constituencies through the Members of Parliament (MP). The MPs will become champions of innovation in their constituencies by campaigning for innovative ideas that have the potential to solve regional and national challenges.

1

The MPLADS guidelines have been issued by Ministry of Statistics, Planning and Implementation (MoSPI).

2

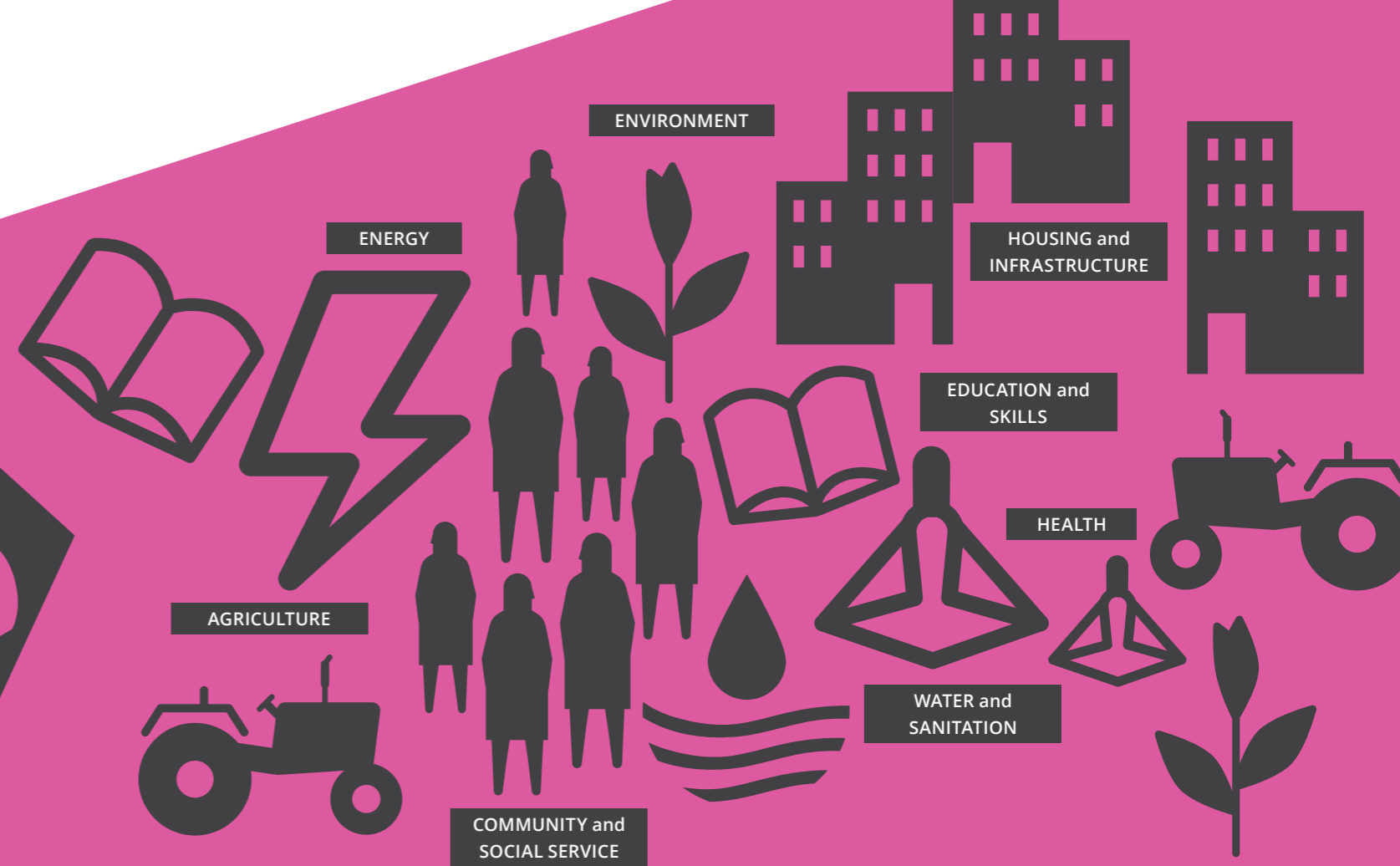
Solutions can be submitted by any individual or teams or institutions from the constituency.



CASH AWARD  
2.5 LAKHS

CASH AWARD  
1.5 LAKHS

CASH AWARD  
1 LAKHS



- 3 The Competition, to be held annually, will invite innovative solutions in the areas of education and skills, health, water and sanitation, housing and infrastructure, agriculture, energy, environment, community and social service etc.
- 4 The Selection Committee will select the three best innovations for cash awards and next five best innovations for certificate of appreciation.
- 5 Cash awards of ₹ 2.5 lakhs, ₹ 1.5 lakhs and ₹ 1 lakh will be awarded to the first, second and third prize winner respectively (funded from MPLADS).
- 6 The awards shall be given by the Hon'ble MP in a public function with adequate media coverage.



Innovations in  
**Justice  
System**

In order to improve access to justice the Government of India has supported leveraging ICT in the Administration of Justice including computerising 14,000 courts, supporting a national judicial data grid, conceptualising an Interoperable Criminal e-Justice System amongst other initiatives



# Justice System

### Background

"Justice, Social, Economic and Political" is the spirit and vision of the Constitution of India. The Prime Minister, at "The Conference of Chief Ministers and Chief Justices" on the 16<sup>th</sup> August, 2009, described the huge arrears and case backlogs as the "scourge" of the Indian legal system.

Ministry of Law and Justice convened a National Consultation for Strengthening the Judiciary towards Reducing Pendency and Delays (24-25 October 2009). Outcome which established the following framework:



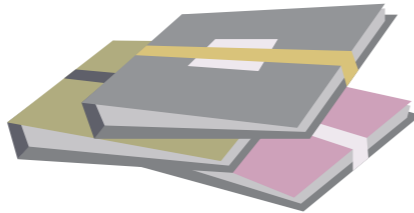
#### Vision

Timely Delivery of Justice to all



#### Mission

To strengthen the Judiciary towards reducing pendency and delays



#### Objective

Reducing the pendency of arrears from 15 years to 3 years

*Prime Minister tasked the Office of Adviser to Prime Minister on Public Infrastructure and Innovation to explore the use of Information and Communication Technology in the Justice System. Outcome - Courts of Tomorrow Framework; Integrated e-Justice System; Interoperable Criminal e-Justice System*

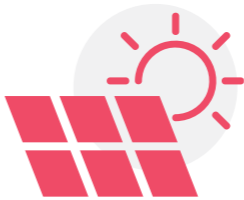
### National Legal Mission



Human Resource Development



Infrastructure Development



Technology Program



Policy changes



Process Re-engineering

## National Data Grid

A pioneering program of the e-courts mission mode project is its national portal [www.ecourts.gov.in](http://www.ecourts.gov.in). The backend of this portal is the data uploaded by District Courts across the country using the Case Information Software (CIS) and replicated to the servers at National Data Centre (NDC) of NIC. This central repository of case information is the National Judicial Data Grid (NJDG). The litigant/citizen therefore gets a single window access to cauelists, case-status, orders/judgments from the District Courts.

Information of more than 3 Crore pending and disposed cases is hosted on this portal and has also made it possible for the High Courts to run analytics on the performance of the District Courts leading to better oversight and greater transparency.

# Courts of Tomorrow

The Office of Adviser devised a framework titled the Courts of Tomorrow

- **Information Infrastructure for the Courts: Dedicated Broadband Network and National Data Centre**
- **Interconnection of Courts, Prisons and Police Stations etc.**
- **ICT enabled Court Rooms**
- **Integrated Case and Document Management System**
- **Digitisation, e-Filing and e-Service**
- **e- Transactions including - e-Orders, e-Copies and e-Causelists**
- **e-Administration for courts**
- **e-Library**
- **Provide Citizen Centric Services**
- **Managed Services Model for supporting members of the Judiciary**



## Progress

Department of Law and Justice established the Model Courts Scheme based on the Courts of Tomorrow framework.

The Government of Madhya Pradesh commissioned the National Law University Delhi to prepare a detailed project report for implementing the Courts of Tomorrow program across Madhya Pradesh,

Elements of the Courts of Tomorrow framework have also been incorporated into the E-courts Mission Mode Program as well as other ICT programs in courts and other institutions connected to the justice system

Service of Process leads to over 40% of the delay in cases -Department of Posts, Government of India, and the High Court of Delhi are collaborating on a system whereby the Department of Posts will enable the service report to reach the court within seven days from when process was issued by the court. This will assist in planning as well as in management of the court.

Many High Courts are considering the use of the e-Office software for internal administration

*ICT enabling the Central Agency, Department of Legal Affairs, Government of India*

*Architecting an ICT backbone for the National Litigation Policy*

*Concpetualising a National Online Law e-Library*

# Integrated Criminal e-Justice System

**2012, there were approximately 3.1 crore cases pending**

**Approximately 65% of these being criminal cases.**

**Criminal cases pending in our courts increases by about 5% every year.**

Delivery of timely justice in criminal cases requires that all parts of the system including those defined by the Code of Criminal Procedure and other statutes function in a coordinated manner. We have to enable continuity of processes and provide seamless exchange of data at the interfaces of component systems to reduce the inherent delays and improve the efficacy of the justice system.

## Traditional ICT Framework

Justice System is made up of various parts and has at least four component sub-systems that are by design independent, though processes run across component sub-systems.

The four principal component sub-systems of the criminal justice system are courts, law enforcement and investigation agencies, the prosecution wing and prisons.

ICT initiatives to improve the functioning of these components have been primarily designed as independent systems, with no interfaces or recognition that functionality and processes run across other sub-component systems that make up the justice system.

Supporting components like forensic labs, government hospitals, postal services etc., that provide services to the criminal justice system are not appropriately interfaced, with the criminal justice systems, though they affect the timeliness and efficacy of the justice system.

## Progress

We have to first recognise that the justice system is not a sum of its parts.

Solutions and interventions have to be designed, developed and implemented viewing the justice system as a unitary system made up of many independent component sub-systems that need to be interoperable, appropriately standardised across and the country, and most importantly interfaced and integrated so far as cross-component processes are concerned.

Integrated Criminal E-Justice System recommended by Office of Adviser to Prime Minister PIII. Cabinet Secretary convened the Committee of Secretaries and approved the ICJS program. Concept note prepared by NIC, Pilot in four states Delhi, Himachal, Andhra Pradesh and Uttar Pradesh being developed and implemented by a Steering Committee Chaired by the nominee of the Chief Justice of India the Honourable Justice Madan B. Lokur, Judge Supreme Court of India.





## Partnering for Innovation

# Collaborations and Networks

Platforms for collaboration and networking can have a significant impact on driving innovation in the knowledge economy. Globally, the value of creating shared pools of knowledge for collective solution building is being recognised. These platforms enable sharing of ideas for needs-based solution building, leveraging existing knowledge, sharing of real time information and cross-fertilisation of thinking.

NInC is also focused on facilitating and leveraging platforms for international collaboration for driving innovation and research. To exchange ideas on fostering international collaborations for innovation, NInC has launched the annual Global Innovation Roundtable as a policy platform to discuss ideas around creating an inclusive model of innovation.

Joint collaboration projects have also been undertaken with other countries. India and the US collaborated to develop an Open Government Platform (*OGPL*) to promote transparency and greater citizen engagement by making more government data, documents,

tools and processes publicly available in useful machine-readable formats to develop new applications for citizen benefit.

The National Knowledge Network (*NKN*) is developed by the Government of India as a high speed multi gigabit network which connects the country's educational and research institutions for real time research and collaboration.

# Open Government Platform (OGPL)

During US President Barack Obama's visit to India in November 2010, President Obama and Prime Minister Dr Manmohan Singh agreed to work together to exercise global leadership in support of open government and democratic values.

***The two leaders launched a U.S.-India Open Government Dialogue with a view to harness public-private partnerships, using new technologies and innovations, to promote their shared goal of democratising access to information and energising civic engagement, supporting global initiatives in this area, and sharing their expertise with other interested countries.***

The dialogue was led by the Adviser to the Prime Minister, Mr Sam Pitroda, on the Indian side and then White House Chief Technology Officer Mr Aneesh Chopra on the US side.

Subsequently, the two countries worked together to develop an Open Government Platform (OGPL) to promote transparency and greater citizen engagement by making more government data, documents, tools and processes publicly available in useful machine-readable formats to develop new applications for citizen benefit. OGPL combines and expands the best features of the U.S. "Data.gov" and India's "India.gov.in" sites, and is offered freely to other governments using the open-source model (hosted in GitHub) and community to provide future technology enhancements, implementation practices and technical support.

***The open source format of OGPL has facilitated cost-saving in terms of software and licences and also the enablement of community participation for its further development in terms of data visualisation, consumption, application programming interfaces (APIs) to access data-sets, etc.***

The purpose of the platform is to enhance access and use of government data to foster innovation; improve delivery of government services for interested countries and cities around the world; and promote government transparency, accountability, and public participation. OGPL is more than just a software product – it also includes documentation to help governments create their own national data sharing policies.

OGPL's initial version was released on 30 March 2012 and implemented in India's data-portal (<http://data.gov.in>) to provide single-point access to all data-sets published by the Government in an open format. Simultaneously, a National Data Sharing and Accessibility Policy (NDSAP) was announced by the Government of India on 17<sup>th</sup> March 2012. NDSAP mandates all Ministries/Departments to release maximum possible datasets (*non-sensitive*) in the public domain.



## Current Status

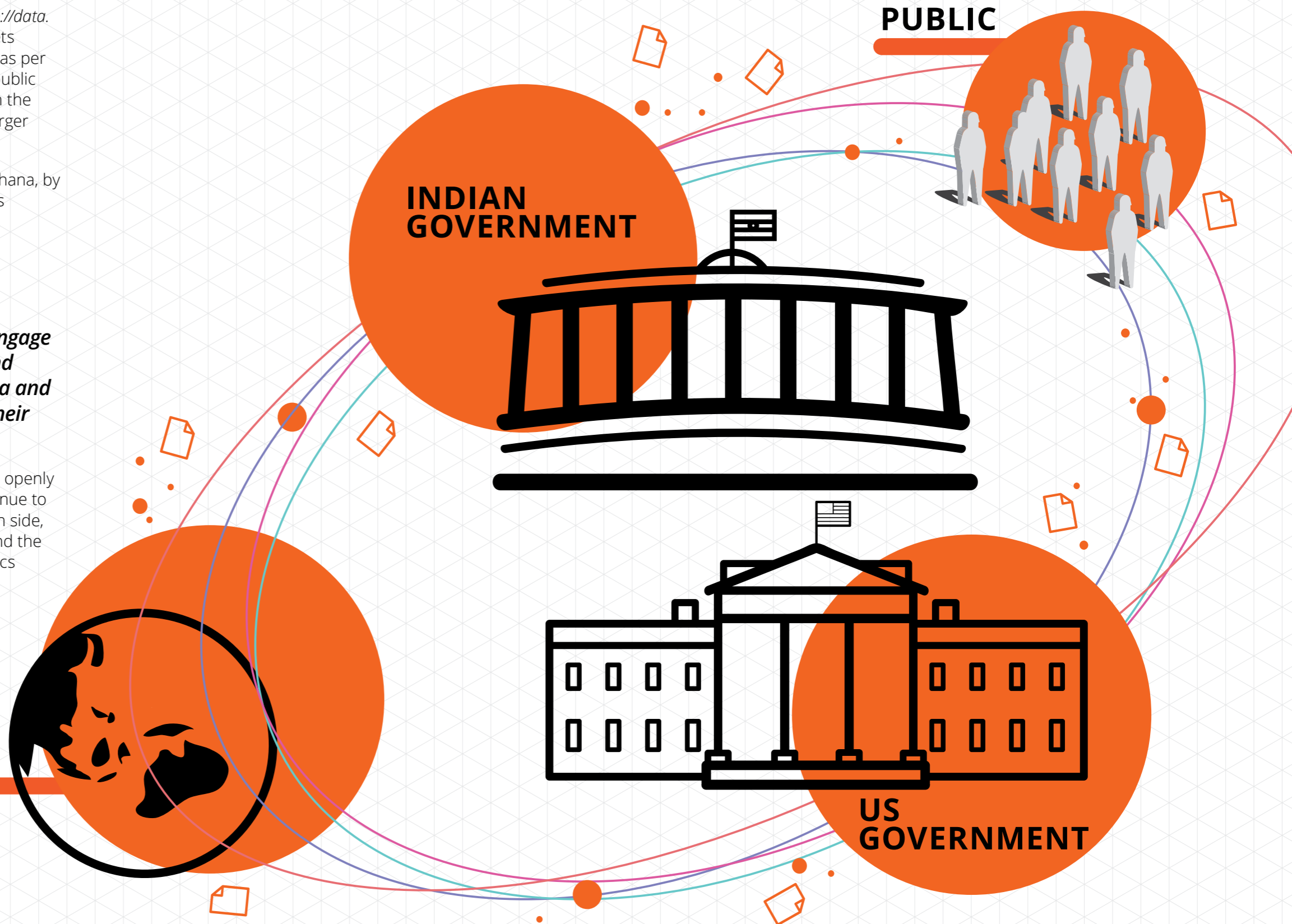
### OGPL Platform v1.0

- 1 Has been implemented in India's data-portal (<http://data.gov.in>) to provide single-point access to all data-sets published by the Government in an open format, as per the Government policy on release of data in the public domain. Currently, 7686 data sets are available on the portal for use by relevant stakeholders and the larger community.
- 2 Has been implemented in a third party country Ghana, by the joint support of India and USA technical teams
- 3 Rwanda implementation underway.

*With the launch of OGPL comes the opportunity to engage the public in improving government transparency and accountability – not only for the governments of India and the United States, but any country seeking to open their data to the world.*

This is an excellent example of inter-governmental partnership in openly sharing capabilities and code, and forging a commitment to continue to operate into the future on a shared, open platform. On the Indian side, the support of the Ministry of External Affairs has been critical and the technical leadership has been provided by the National Informatics Centre, Government of India.

**UGANDA,  
GHANA  
& OTHER  
INTERESTED  
COUNTRIES**



# India-EU Prize for Affordable and Inclusive Innovation

Prizes and awards are increasingly becoming visible and effective policy tools to spur innovation. The inducement and recognition provided by Governments, and the private and philanthropic sector through prizes encourages a larger pool of problem solvers to apply their talent and thinking to solving critical challenges, national or international.

*The National Innovation Council (NInC) and the Delegation of the European Union to India have been in discussions to collaboratively develop and launch an Indo-European prize for affordable and inclusive innovation.*

## KEY ELEMENTS OF PRIZE DESIGN –

- 1 *Awarding Indians and Europeans working together: togetherness and collaboration*
- 2 *Awarding the innovation vs the innovator*
- 3 *Awarding solutions premised on affordability and inclusiveness*
- 4 *Focus on simplicity of design and scalability in terms of impact*
- 5 *Combining a recognition and an inducement dimension*
- 6 *Provision of institutional support and a mentoring ecosystem for the innovations to scale (including leveraging European and Indian industry organisations such as CII/ FICCI, EBG, etc.)*
- 7 *Prize money of at least over €(TBD) per year (or Corpus) with co-funding from Europe and India, and from the public and private sectors. Engagement over a several year period of time would be desirable.*



## Principles for Designing the Prize

Discussions on designing this prize have highlighted the following points:

### Uniqueness

- 1 Given the plethora of awards / prizes in this space it is critical to position this particular prize on the right premise, one that leverages its unique elements. This is the first collaborative prize being offered by India and the EU (*and its interested Member States*) on inclusive innovation, and the unique nature of this collaborative platform should be harnessed in the design of the prize and articulated effectively in the communication exercise.

### Indo-European Collaboration on Affordable and Inclusive Innovation

- 2 The focus should be on affordable, inclusive and relevant innovation done via Indo-European cooperation. The prize would focus on collaboration between European and Indian individuals or public or private organisations. This means not having a prize for Europeans or Indians in isolation. It would be about togetherness in action.

### Simple Design

- 3 The prize should be designed in a simple and transparent manner to ensure that the barriers to entry while focusing on quality and standards, do not pose undue restrictions. For instance, the architecture of the prize should enable Indian and European students studying anywhere in the world to collectively apply for the award.

### Whom to Award

- 4 The prize should aim to reward and celebrate the innovation rather than the person or innovator, with an eye on large scale impact going forward. Hence, while the award would go to the innovating team, it would be for the specific innovation.

### Recognition & Inducement

- 5 The prize could be designed with both an inducement dimension and a recognition dimension, to (i) stimulate ideas for innovation, (ii) to enable the incubation of existing innovative prototypes and business case, and (iii) to reward innovations mature enough to move from prototype to production / scale up and commercialisation.

## Crowdsourcing & open Innovation

Another aspect to explore would be crowdsourcing and open innovation via internet-enabled tools to reach out to innovators in India and in Europe working together. The prize could therefore try to attract and engage critical talent and problem-solvers not only confined to established expert resources whether in business or academia, but also include novel answers coming from the fringes of the innovation ecosystem.

### Funding

- 7 The prize would be co-funded 50/50 by the European and Indian sides, to the with the hope that it would endeavour to leverage additional support from other organisations from the private and public sectors in Europe and in India as it grows in stature and gains recognition. Instead of yearly funding, setting up a corpus may also be explored, and this aspect needs to be discussed further.

### Visibility & Communication

- 8 Public relations and a smart communication strategy are important to reach a large and diverse audience. Communication actions in Europe and in India have to be shaped to garner a large range of media and public interest throughout the phases of the competition. The prize ceremony could for example take place at the time of the annual EU-India Summits.

### Impact

- 9 Finally, steps have to be incorporated in the design of the prize to measure the impact and make appropriate adjustments based on the information collated.



The Department of Science and Technology in India has agreed to provide the institutional mechanism to support the prize under the overarching umbrella of India-EU S&T Cooperation Agreement, after the National Innovation Council has provided the framework for the same.

On the European side, the Delegation of the EU and the Embassies of the EU Member States interested in the prize will report to and discuss the prize design with their respective authorities in Europe and examine the possibilities for the way forward, e.g. within "Horizon 2020" at the European Commission level and other programmes / institutions at Member State level.



## National Knowledge Network

*The National Knowledge Network (NKN) is developed by the Government of India as a high speed multi gigabit network which aims to connect the country's educational and research institutions for real time research and collaboration.*

Currently 1182 institutions are connected on NKN. The NKN by networking all knowledge institutions and providing them with high speed connectivity aims to facilitate flow of information and create a platform for collaboration between researchers, academic faculty and students from diverse backgrounds and geographies.

NKN has been connected to the International Research Education Network through Trans Eurasia Information Network (TEIN) 3 and then through TEIN4. This has the participation of various research labs/universities in Europe and Asia Pacific region. This is achieved by connecting NKN by a 2.5 mbps link to Madrid and 2.5 gbps link to Singapore.

NKN has decided to set up a Points of Presence (PoP) at Singapore, Amsterdam, CERN, and New York. These PoPs will further be connected to various RENS of the world. By establishing these pops, NKN will have direct interactivity with Internet2, Glorid, Canarie, Geant, CERN, TEIN4 and various others.

GARUDA is a grid computing platform consisting of high performance computers which are now connected via NKN. 45 research and academic centres, including more than 36 partner institutions, centres of the Centre for Development of Advanced Computing (C-DAC) are participating in the GARUDA. Research has been initiated in Semantic Grid Services, Integrated Development Environments, Storage Resource Managers, Network Simulation and Grid File Systems.

C-DAC is also collaborating in the EU-India Grid project which will allow researchers and scientists across Europe and India to conduct simulation experiments on EGEE and GARUDA grids. Efforts are on to integrate the technology components of both the grids, which would enable the users to access the resources and services across the grids in a secure and seamless manner.



## Innovation Partnerships

*With the support of the Ministry of External Affairs, the National Innovation Council has also initiated several rounds of interactions with the Ambassadors of African and Latin American countries to chart out potential areas of collaboration on innovation – ranging from leveraging of India's expertise in the National Knowledge Network, to creating partnerships for setting up of knowledge and innovation institutes.*

# Global Innovation Roundtable

*The aim is to bring India at the forefront of showcasing pioneering innovations and emerge as a model for sharing them with other nations facing similar development challenges.*



Most governments around the world are prioritising innovation as they realise that promoting innovation is the key for a nation to become more productive, stay competitive and sustain economic growth. To foster collaborations on inclusive innovation, exchange ideas for knowledge sharing and collective solution building, the National Innovation Council has launched a Global Innovation Roundtable as an annual policy platform. Through institutionalising the Roundtables, the aim was to create a global platform for sharing experiences, best practices and enabling collaborations around the theme of inclusive innovation for addressing the challenges of access, equity, excellence and inclusion.

The First Global Innovation Roundtable was held in New Delhi on 14<sup>th</sup>-15<sup>th</sup> November 2011, in collaboration with the World Bank Institute. The heads of innovation from 15 Governments were invited to come together to discuss the role of innovation in improving growth and welfare. The key objective of the Roundtable was to explore the relatively less charted road of broad-basing innovations to meet key development challenges, share cross-country experiences and develop a paradigm for inclusive innovation. The countries represented included the U.K., the United States of America, Australia, France, Canada, Mexico, Israel, Sweden, Netherlands, Brazil, Germany, Japan, South Africa, and EU.

The discussions echoed the need to have a long-term approach to fostering innovation. It was also stressed that the public sector, private enterprises, social sector and venture capital industry need to partner and support programmes and policies that enhance the national innovative capacity.

The Roundtable gathered diverse perspectives and accessed global knowledge on innovation as a means to create sustainable and cost effective solutions for the BOP population. It also drew significant support from the Indian government. The Prime Minister of India, while releasing the National Innovation Council's 'Report to the People' on the second day of the Roundtable stated –

***“We view innovation as truly a game changer to move from incremental change to radical change. It is, therefore, our resolve to build an enabling environment for innovation to flourish in our country”.***

To propose further collaborations and knowledge exchange to mobilise resources, and continue the systemic focus on promoting inclusive innovation, NInC hosted the Second Global Innovation Roundtable on 1<sup>st</sup> and 2<sup>nd</sup> November 2012.

***The Second Roundtable saw participation from heads of Innovation policy from 20 Governments across the world and leading global Innovation experts and the key objective of the Roundtable was once again to develop a paradigm for inclusive innovation and share experiences with stakeholders.***

The Roundtable also saw the presentation of the National Innovation Council's annual 'Report to the People' 2012 to the Hon'ble President of India Shri Pranab Mukherjee at the Rashtrapati Bhavan.





At the conclusion of the second Roundtable, the following areas were outlined for collaboration –

**1 Open Government**

The Platform already developed by India and the US for this could be adopted by other countries, and India could help implement.

**2 Crowdsourcing Innovation Platform**

The Open Source Drug Discovery Platform developed by India for tuberculosis drug discovery could be used as a template for crowdsourcing in new areas of drug discovery.

**3 Innovation for Education**

Existing educational content could be aggregated, filtered and indexed, under the guidance of global domain experts and made available on mobile devices.

**4 Innovation for Health**

Health content could also be aggregated and made available, just like educational content. Further, India's initiative for an Open Source Electronic health records system and tele-medicine could be adopted by other countries.

The National Innovation Council hosted the **third edition of the Global Innovation Roundtable on 18<sup>th</sup> and 19<sup>th</sup> November 2013** where heads of innovation policy from 30 Governments came together to discuss innovation perspectives and share best practices. To provide a long term, institutionalised focus, the Ministry of External Affairs collaborated with NInC to host the Roundtable.



*Some of the issues that were discussed during the multiple sessions included the steps needed to create an 'Institutional Framework for Inclusive Innovation'; 'Local Ecosystems for fostering Inclusive Innovation'; 'Innovation for Social Impact'; 'Scaling Inclusive Innovation'; 'Learning from Global Good Practices'; 'Innovation in Education'; and 'New Media and ICT Platforms for Innovation'.*

The Roundtable ended with a discussion around specific, implementable collaboration suggestions around inclusive innovation from the participating countries. At the conclusion of the Roundtable, the President of India also released the third annual 'Report to the People' of the National Innovation Council to which showcased the Council's effort towards creating an inclusive innovation ecosystem in the country.

# Innovations in Urban Governance

While it took nearly 40 years, 1971-2011, for the urban population to increase from 109 million to 376 million, it will take only half the time to add the next 250 million. The population of urban areas has increased from 19.9% to 31% from 1971 to 2011 while the contribution of urban areas to the GDP growth has shown a phenomenal increase from 38% to 60% over the same period. Between 2001 and 2011, rural population increased by 90 million whereas urban population has increased by 91.1 million in absolute terms.



*The session was divided in the following themes*

- 1 Local Empowerment and Accountability
- 2 Municipal Finance
- 3 Management of Peripheries/ Metropolitan areas
- 4 Service Delivery
- 5 Citizen and Community Participation



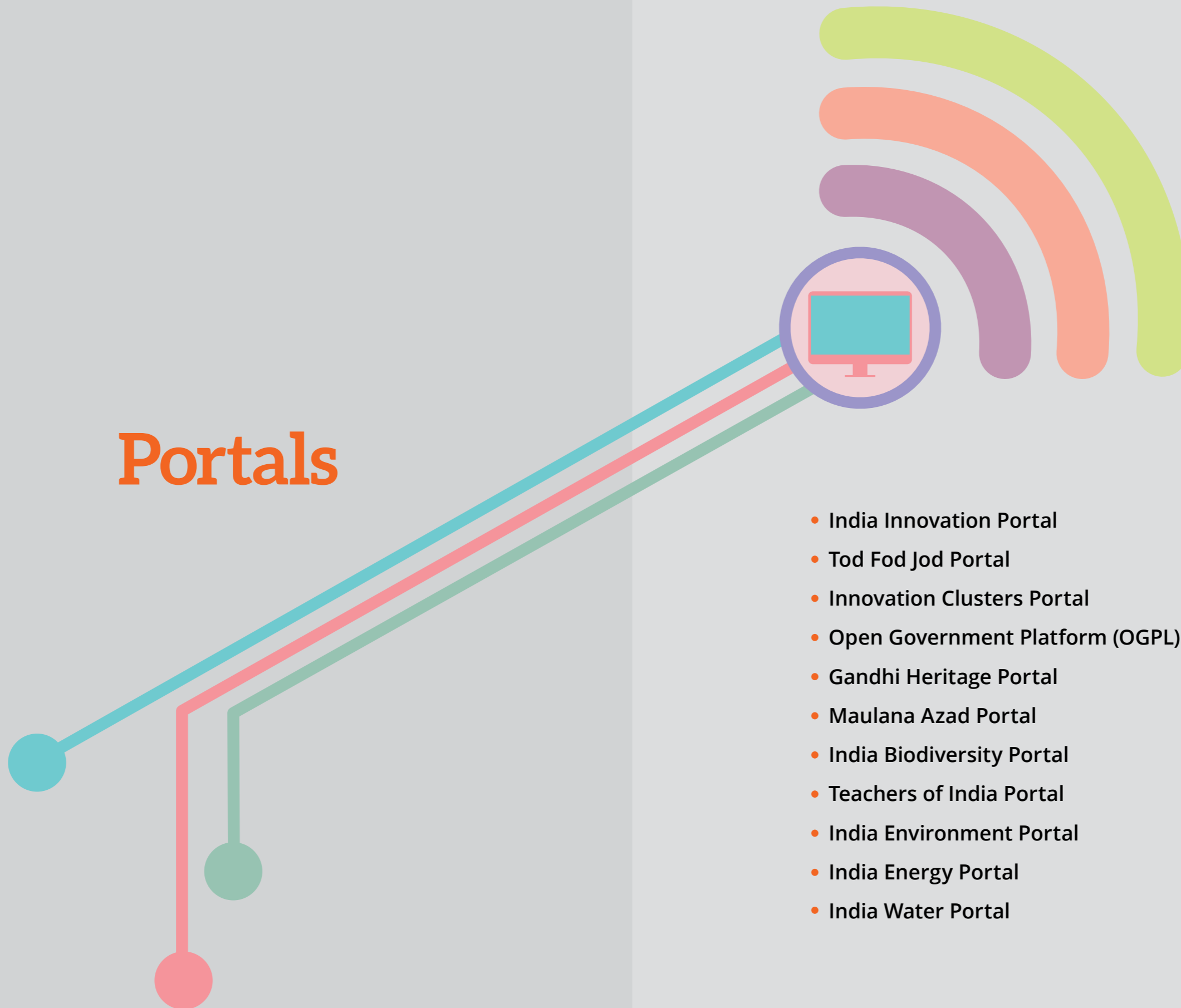
***A conference on “Innovations in Urban Governance” was organized by the Ministry of Urban Development in collaboration with National Innovation the National Innovation Council and the World Bank on 26<sup>th</sup> and 27<sup>th</sup> August 2013. This was held to bring together city and State government officials, policy makers, practitioners and researchers to share perspectives on urban governance, challenges faced and innovative governance practices in cities both within and outside India.***

The main objectives of this conference were to a) Understand what good governance means in an Indian urban context; b) begin to develop a "vision" for better governance of Indian cities; c) discuss innovative practices and best practices in areas of institutional structures, service delivery, financing and citizen participation; d) discuss the emergence and challenge of governance and service delivery in peripheries; e) discuss policy directions to inform the urban governance agenda in the government policies and programs.

***Key recommendations***

- 1 Implement the 74<sup>th</sup> Constitutional Amendment by empowering and strengthening municipal institutions.
- 2 Clarify the roles of State Governments and their Urban Local Bodies (ULBs) with commitments to strengthen politically empowered and accountable ULBs.
- 3 Professionalize ULB management to address the requirements of a changing sector.
- 4 Modernize ULB management systems, methods and procedures.
- 5 Promote inclusion of ULB-wide delivery of services on the local political and civil society agenda.
- 6 Establish clear goals and service level benchmarks.
- 7 Strive for financial sustainability
- 8 Provide a clear and effective institutional and regulatory framework.
- 9 Communicate a clear vision of the role of the private sector.
- 10 Foster accountability through participation.

# Portals



- India Innovation Portal
- Tod Fod Jod Portal
- Innovation Clusters Portal
- Open Government Platform (OGPL)
- Gandhi Heritage Portal
- Maulana Azad Portal
- India Biodiversity Portal
- Teachers of India Portal
- India Environment Portal
- India Energy Portal
- India Water Portal

# Portals

The National Knowledge Commission (NKC) recognised that as the drive towards decentralization, right-to-information, people's participation and transparency sweeps the country, tools like public portals can play an important role in ensuring that more people exercise their rights. The NKC and thereafter the National Innovation Council have been promoting the development of portals in various areas.







### India Innovation Portal

The India Innovation Portal, one of the key initiatives of the NiC, networks people, ideas, experiences and resources to galvanise the innovation community in India. The portal is an information aggregator and is intended to become a one-stop-resource on innovations in the country.



Scan the QR code to visit the Portal  
[www.innovation.gov.in](http://www.innovation.gov.in)



**Tod Fod Jod Portal**

A portal has been developed for Tod Fod Jod (TFJ) initiative of NInC to disseminate and aggregate information about the initiative and to engage the TFJ community. The portal acts as a platform for multiple stakeholders to interact, share information, seek answers and learn more about the TFJ initiatives.




Scan the QR code to visit the Portal  
[www.todfodjod.gov.in](http://www.todfodjod.gov.in)



www.innovationclusters.gov.in

## Innovation Clusters Portal



[MSMEs IN INDIA](#) | [NiIn VISION](#) | [INNOVATION CLUSTERS INITIATIVE](#) | [PILOT CLUSTERS](#) | [RESOURCES](#)

### Engines of Growth

#### MSMEs - Engines of Growth

Micro, Small & Medium Enterprises (MSMEs) are viewed as major engines of job creation and inclusive growth, both in developed and developing countries.

India today boasts -

- › 447.73 lakh\* number of MSMEs comprising of manufacturing, handicraft and handloom sectors
- › 1,012.59 lakh\* people employed in these MSMEs
- › Rs.18,34,332.05\* crores revenue generated

### Innovation Clusters Portal

The NiInC launched the Innovation Clusters Portal to act as a repository of knowledge on innovation and models thereof using a cluster-based approach. NiInC has successfully piloted two initiatives viz. Industry Innovation Clusters and University Innovation Clusters, to bring out models for seeding innovations in MSME clusters and University-based clusters. The portal also has guides and manuals for others to replicate/adapt these models for their benefit.



Scan the QR code to visit the Portal  
[www.innovationclusters.gov.in](http://www.innovationclusters.gov.in)



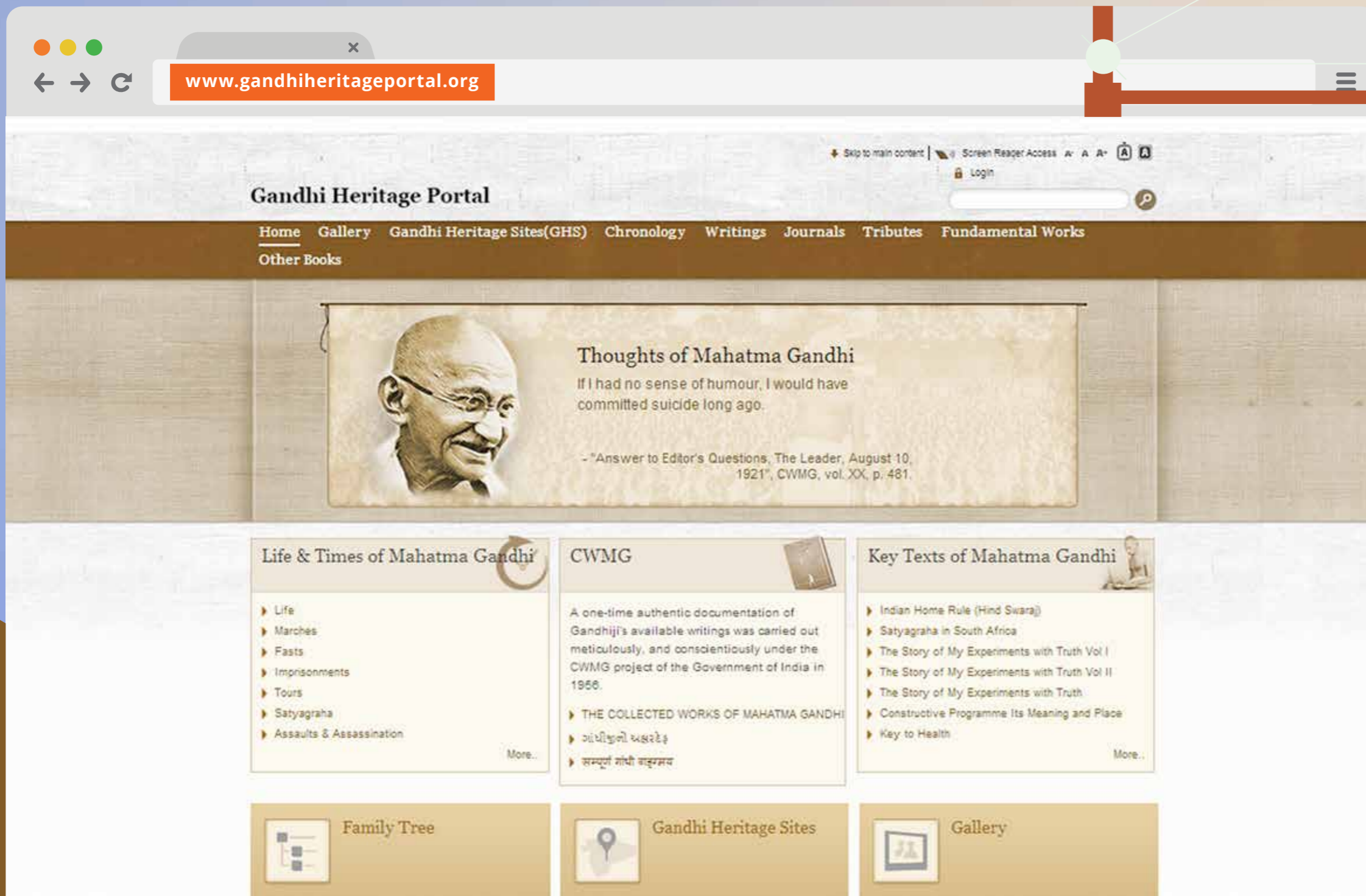
A screenshot of the Open Government Platform (OGPL) website. The browser address bar shows 'www.ogpl.gov.in'. The website header includes the 'opengov' logo with the tagline 'DISCOVER POSSIBILITIES' and the text 'Open Government Platform (OGPL) developed through India - US collaboration'. A navigation menu contains 'Home', 'Features', 'Documentation', and 'Contact Us'. A search bar is located to the right of the menu. The main content area features a large, colorful, abstract graphic with a grid pattern and various colored circles. Below this, there are three columns: 'News' with several article links, 'Open Government Platform - OGPL To Promote Transparency And Citizen Engagement' with a detailed paragraph and a sub-paragraph, and 'Product Releases' with a link to 'OGPL Beta Code-base Released'. A 'Gallery' section is also visible at the bottom right.

**Open Government Platform (OGPL)**

OGPL is a joint initiative from India and United States to promote transparency and greater citizen engagement by making more government data, documents, tools and processes publicly available. Availability of data in useful machine-readable formats allows developers, analysts, media and academia to develop new applications and insights that will help citizens garner more information for better decisions. The portal is maintained by the National Data Portal Secretariat



Scan the QR code to visit the Portal  
[www.ogpl.gov.in](http://www.ogpl.gov.in)



### Gandhi Heritage Portal

The Gandhi Heritage Portal is conceptualised around The Collected Works of Mahatma Gandhi. It has placed the collected works in English (100 volumes), Hindi (97 volumes) and Gujarati (82 volumes). The Gandhi Heritage Portal also provides audio, visual, film material as also caricatures, paintings and postage stamps related to Gandhiji. The Gandhi Heritage Portal at present has 5 lakh pages of authentic and verified information on Mahatma Gandhiji. The Portal has been funded by the Ministry of Culture and has been designed, developed and maintained by the Sabarmati Ashram Preservation and Memorial Trust, Ahmedabad.



Scan the QR code to visit the Portal  
[www.gandhiheritageportal.org](http://www.gandhiheritageportal.org)



century determined. He stood for a learning society through liberal, modern and universal education combining the humanism of Indian arts and the rationalism of western sciences, a society where the strong are just and the weak secure, where the youth is disciplined and the women lead a life of dignity - a non-violent, non-exploiting social and economic order. He was free India's first Education Minister and guided the destiny of the Nation for eleven years. His birthday 11th November has been declared as National Education Day.

He was the first to raise the issue of the National System of Education which is today the bed-rock of the National Policy on Education (1986) updated in 1992. The concept implies that, upto a given level, all students, irrespective of caste, creed, location or sex have access to education of a comparable quality. All educational programmes, he said, must be carried out in strict conformity with secular values and constitutional framework. He stood for a common educational structure of 10+2+3 throughout India. The wealth of the nation, according to Maulana Azad, was not in the country's banks but in primary schools. Maulana Azad was also a great votary of the concept of Neighbourhood Schools and the



www.maulanaazadheritage.org



## Maulana Abul Kalam Azad (1888 - 1958)

“The Emperor of learning. A person of the calibre of Plato, Aristotle and Pythagorus”  
-Mahatma Gandhi on Maulana Abul Kalam Azad



Portrait by M.F. Husaain in the collection at NGMA, New Delhi

*"Consciously in the last twelve years I have been training my community and my country to demand its rights and liberty. I was only eighteen years old when I first started speaking and writing on this theme. I have consigned my entire existence to it, and have sacrificed the best years of my life. In the whole of my youth, to love for this ideal. For four years I have suffered imprisonment, but even during my imprisonment I have never desisted from pursuing my goal and inviting people to adopt this national ideal. This is the mission of my life and, if I live at all I elect to live only for this single purpose."*

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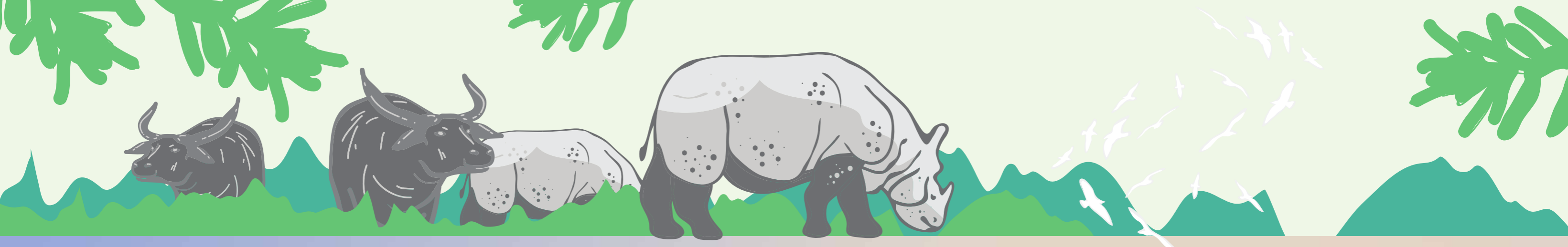
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### Maulana Azad Heritage Portal

NInC launched a national portal on the 125<sup>th</sup> birth anniversary of Maulana Abul Kalam Azad, the first education minister of the Independent India, to inform people about his life and legacy. The portal is an initiative to digitise the heritage of the leader, who is credited with establishing a national education system and modern institutes of higher education, including the Indian Institutes of Technology.



Scan the QR code to visit the Portal  
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www.indiabiodiversity.org

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**Welcome to the India Biodiversity Portal**

A unique repository of information on India's biodiversity. The Portal aims to provide open and free access to biodiversity information. The portal enables widespread participation by all citizens in contributing to and accessing information on Indian biodiversity. We believe such open access benefits science and society, and contributes to sustainable future. Your participation is vital. We welcome your participation and feedback. More ...

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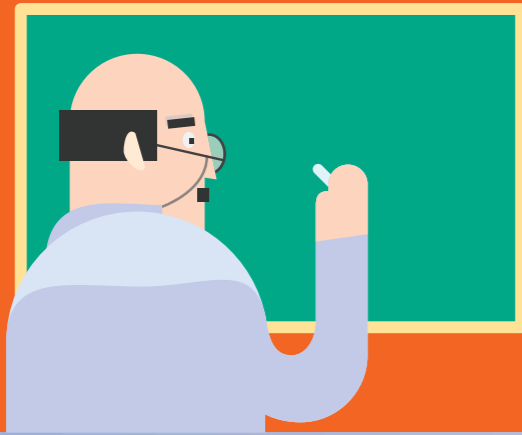
Activity 28 Observation 1 Users 1 | March 24, 2014

## India Biodiversity Portal

The India Biodiversity Portal is proposed as a collaborative effort between five partner institutions. The Ashoka Trust for Research in Ecology and Environment is leading this effort. The portal helps to promote decentralization, transparency, the right to information and participatory action with respect to biodiversity conservation and utilization. This portal provides information on various aspects of biodiversity in India. The portal has been designed to harness collective knowledge, seek voluntary participation of users and establish a participatory platform for content generation, verification and usage.



Scan the QR code to visit the Portal  
[www.indiabiodiversity.org](http://www.indiabiodiversity.org)



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Enabling environment in schools...

To understand what it takes in terms of curriculum and other enablers, to provide quality education to the children of migrant labour Azim Premji Foundation decided to start schools for these children.

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### Teachers of India Portal

Proposed by the NKC in 2008, the portal, an initiative of Azim Premji Foundation, is a platform for teachers, teacher educators and others working in education in India. The Teachers of India Portal aims to create a vibrant community of teachers through the sharing of knowledge and experience on a common platform.



Scan the QR code to visit the Portal  
[www.teachersofindia.org](http://www.teachersofindia.org)





www.indiaenvironmentportal.org.in

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**The United Nations World Water Development Report 2014 : Water and Energy**  
The World Water Development Report 2014 focuses on the interdependence between the management of water and energy and says that a sustainable approach to the management of both freshwater and energy resources is extremely essential to provide modern, affordable and environmentally sound energy and drinking water services for all.  
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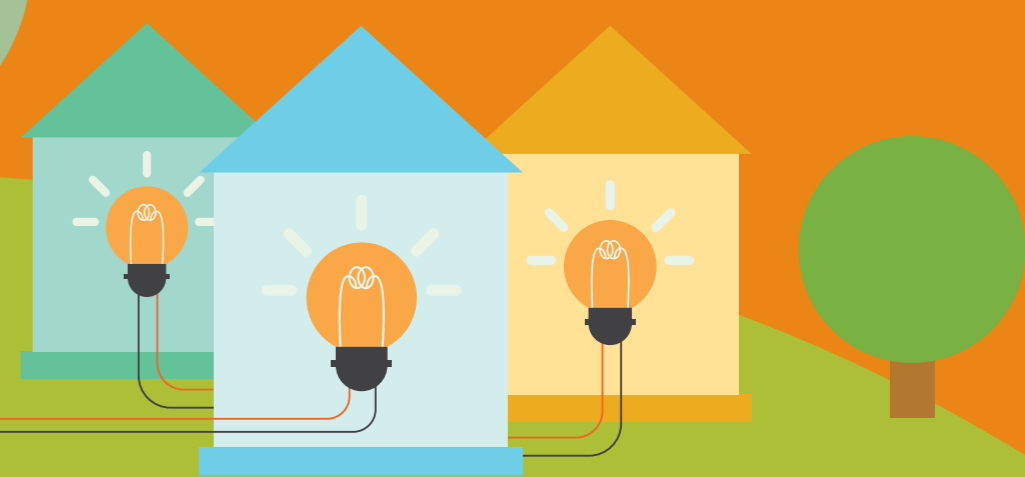
**WORLD WATER DEVELOPMENT REPORT 2014**

**India Environment Portal**

The India Environment Portal is initiated and managed by the Centre for Science and Environment (CSE) and promoted by the NKC. The key strength of the India Environment Portal is its use of a unique and built thesaurus of environmental and geographic terms.



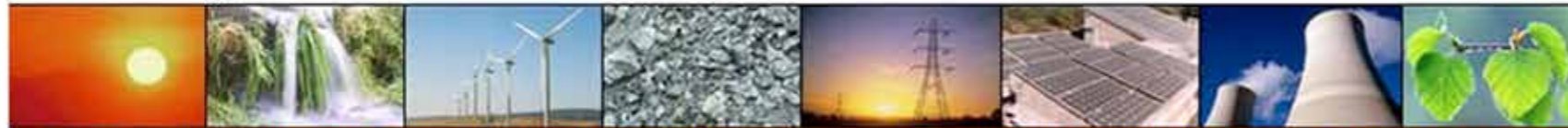
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www.indiaenergyportal.org



## India Energy Portal



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India Energy Portal an initiative of GOI and TERI

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[Clinton Foundation mulls world's largest solar project in Gujarat](#)

Business Standard , 2008-08-20

[BPCL to start solar generation in 3 mths](#)

The Tribune , 2008-08-20

### Energy Map



The consumption of power by each state in the country and it's capacity to generate power.

### An Area of Darkness



This film focuses on rural ingenuity in harnessing renewable sources of energy to light up their homes after sunset.

[Play the movie](#)

### Do you know?

India receives solar energy equivalent to over 5000 trillion kWh/year, which is far more than the total

### Blogs

#### Energy for the poor

One of the major steps for a pro-active, time bound and concerted action to reduce poverty was when the leaders of 189 countries met in 2000 and agreed on the Millennium Development Goals (MDGs).

#### Energy Use in India: How are we doing?

The energy sector absorbs the largest chunk of resources invested in the Indian economy, and also accounts for the largest share of the national imports bill.

#### Women as solar power entrepreneurs



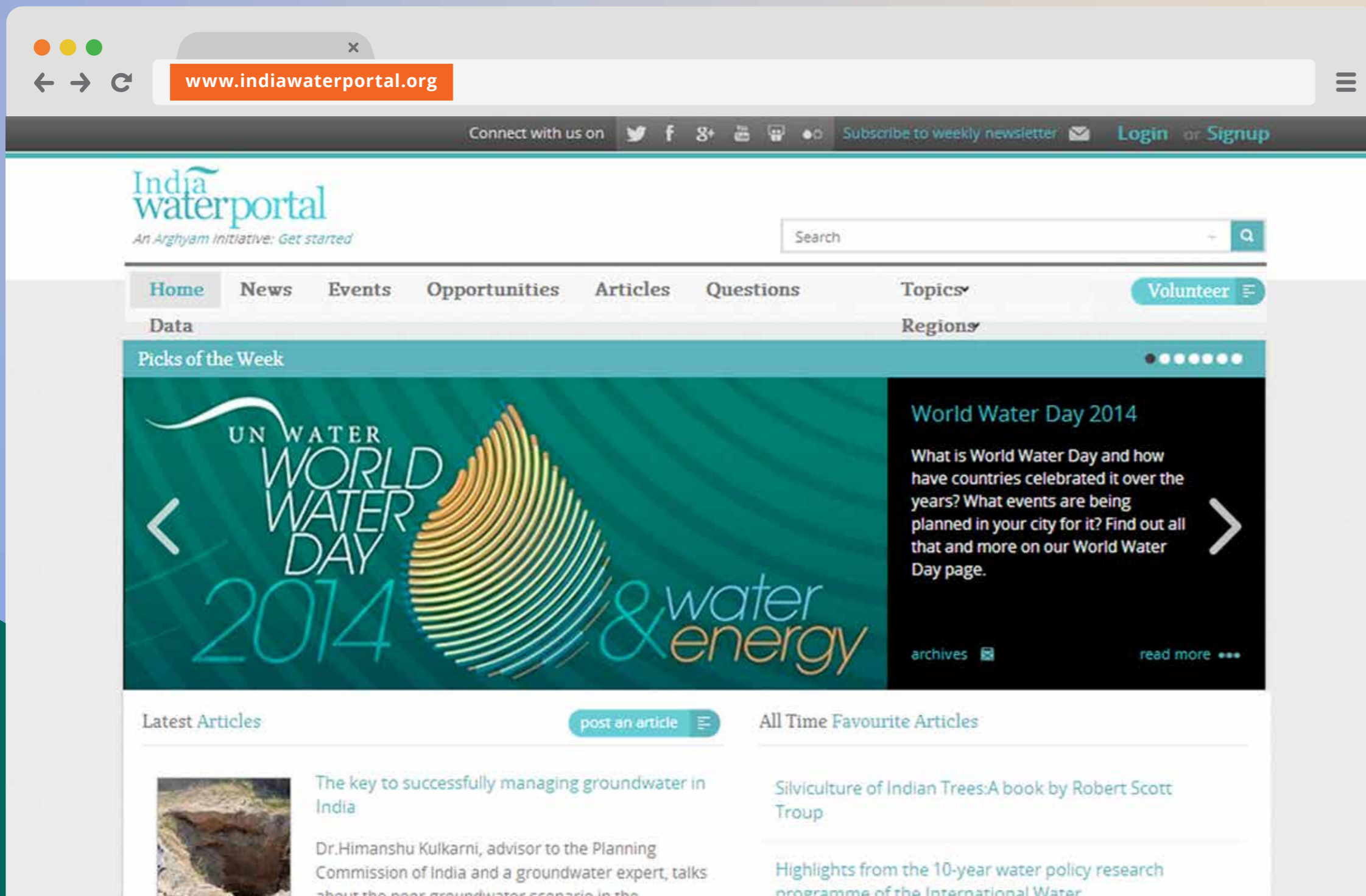
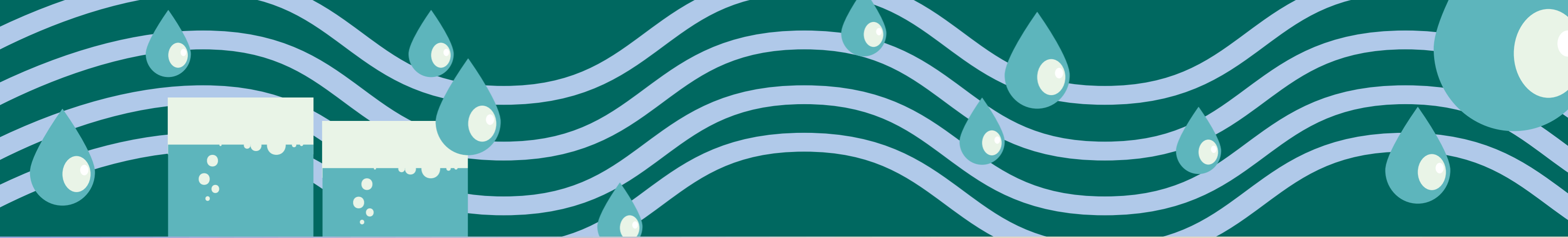
An initiative is underway to empower the women of the Sunderbans as entrepreneurs of solar power. This pilot project provides training and capacity building on several techno-commercial aspects of solar power to the Sunderbans women. This enables them to take solar PV-based services to remote and interior villages, and repair and maintain existing products and systems. Thusfar, this project has helped 6 women become solar entrepreneurs, engaged in a variety of businesses, such as charging and renting of solar lanterns on daily basis, designing and assembling small electronic items, and repairing solar home systems.

## India Energy Portal

India Energy Portal (IEP) provides access to information and knowledge on various aspects of energy in a comprehensive manner to a variety of stakeholders. IEP is developed and managed by The Energy and Resources Institute (TERI) on behalf of National Knowledge Commission for effective consolidation and assimilation of knowledge related to Energy.



Scan the QR code to visit the Portal  
[www.indiaenergyportal.org](http://www.indiaenergyportal.org)



**India Water Portal**

India Water Portal shares knowledge and builds communities around water and related issues in India. Managed by Arghyam, the Portal has become a valuable archive of resources, working papers, reports, data, articles, news, events, opportunities and discussions on water.



Scan the QR code to visit the Portal  
[www.indiawaterportal.org](http://www.indiawaterportal.org)

# NInC Team

## Current Team



Ms. Aashima Seth  
**Research Assistant**



Ms. Bindeshwary Rai  
**Senior Research Officer**



Mr. Himanshu Thakur  
**Research Assistant**



Mr. GP Gupta  
**Budget & Accounts Officer**



Mr. Keerthi Laal Kala  
**Consultant**



Mr. Rakesh Rewari  
**Expert**



Mr. Samir Mitra  
**Expert**



Mr. Sanjay Aghav  
**PS to Member Secretary**



Mr. Suhaan Mukerji  
**Expert**



Ms. Sukhman Randhawa  
**Consultant**



Mr. Vikas Bagri  
**Consultant**

## Former NInC Members

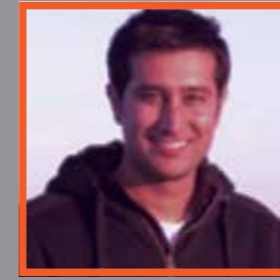


Late Shri R. Gopalakrishnan



Mr. Sanjay Dhande

## Former Team



Mr. Abhimanyu Nohwar  
**Expert**



Mr. Amit Agrawal  
**Officer on Special Duty**



Ms. Deepti Ayyanki Dinkar  
**Research Assistant**



Ms. Kalpana Awasthi  
**Officer on Special Duty**



Ms. Mitakshara Kumari  
**Consultant**



Mr. Rahul Nayar  
**Consultant**



Mr. Subrata Kundu  
**Consultant**



Ms. Veena Upadhyaya  
**Expert**

Published: 2014

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