In about a quarter of a century, a small effort to do justice to the creativity, innovation and traditional knowledge of local communities and individuals has blossomed into a substantial international movement. The Honey Bee Network follows the principles embodied by the life of the honey bee: the cross-pollination of ideas, making sure the knowledge provider is known and not anonymous, not short changing the knowledge provider, and sharing benefits fairly and justly. SRISTI (Society for Research and Initiatives for Sustainable Technologies and Institutions) provides the Honey Bee Network with institutional support and pools innovations in educational, technological, institutional and cultural domains.

In the quarter century of its existence, the Honey Bee Network has created numerous benchmarks in the field of enriching innovation ecosystems at the local, national and international level. The experience of the Honey Bee Network benefits teaching and research around the world at most leading universities and institutions. And yet, the tasks that still need to be done far outweigh what has been accomplished so far. This article identifies the various Honey Bee Network initiatives, which volunteers from around the world can join. Strong initiatives have already emerged in China, Malaysia and recently in Namibia that replicate the Honey Bee Network’s experience. There is a need for wider dialogue on the essential components of inclusive innovation models necessary for triggering genuine participative development in any country. The biennial awards given by Hon’ble President of India and annual IGNITE awards presented by the former Indian President testify to the place that this movement has earned in their hearts and minds. New educational methods will need to be invented to trigger many more experiments and institutional initiatives to further enrich the innovation ecosystem.

There are several initiatives in which colleagues can lend a hand in whatever capacity they wish. Many of these could be replicated in both the developing and the developed world, and link creative people and communities around the globe. I will begin with the recent initiatives first and move backward in time.

**The Technology Acquisition Fund: expanding the public domain**

Many technologies may take long time to blossom into products or services. In some cases, they may not have much future impact, except in the specific context in which they originated, unless they are blended with other technologies from the formal or informal sectors. Some technologies may not have much commercial potential at all, but be open to social diffusion. The Technology Acquisition Fund addresses such needs. The National Innovation Foundation [NIF] acquires the rights to such technologies, which are then licensed at low or no cost to small entrepreneurs. Some of these technologies enter the public domain and are transmitted to communities whose members make use of them. The idea here is that the state and not innovators should subsidize society. Though the NIF acquires the rights to a given technology, innovators still retain their right to use their innovations in any way they want at their level. If the NIF is able to license it to third party for a higher sum or generate more revenue, these funds are shared with the innovators even though they have licensed the rights. Volunteers can contribute to pooling technologies to generate value-added products, use social media to create wider awareness and translate non-monetary practices into local languages.

**The technology commons: encouraging person-to-person copying**

Many lead technologies developed by grassroots innovators are altered by other innovators or imitators. This concept was developed as a part of Riya Sinha’s Ph.D dissertation, which essentially ex-
explored the idea of creating a technology commons comprising lead technologies and improvements thereto. The whole portfolio can be licensed to a third party and benefits go to the commons’ members. Here person-to-person copying of the technologies is not only tolerated; it is appreciated and encouraged. But firms are not allowed to copy any of the technology. They need to acquire a licence before using the technology or its derivatives.

Micro Venture Innovation Fund: risk capital for small innovators

Proposed in 1997, this idea was implemented in 2003 after an earlier announcement by the Finance Minister in the Parliament. While there has been worldwide consensus on the utility of microfinance, there is still considerable reluctance to acknowledge the need for micro venture capital. This blind spot may result from inherent denial of the creativity contained at the grassroots level. Such a significant policy gap at the level of the World Bank, KFW, GTZ and other international and national agencies is difficult to understand. If risk capital is important for biotechnology and information technology, why wouldn’t it be equally important for small innovators in different sectors?

Product development and incubation support:

A large number of technologies are at the proof-of-concept or crude prototype stage or are just going into practice. These need to be validated and valorized before they become products and utilities. This is an area in which the NIF and the Honey Bee Network have faced extreme limitations. For the first ten years of the NIF, the budget remained frozen at about 400,000 USD per annum and from last year onwards, it was increased to around 1.6 million USD. Given that the database has grown to 15 times its original size since 2000, and that inflation is keeping pace with this expansion, the resources have hardly grown at all in real terms. In a country in which GDP has almost doubled in the same period, a decline in resources for grassroots innovators and traditional knowledge holders is deeply disheartening, especially in this, the Decade of Innovation. Considerable breakthroughs are possible both for India and the rest of the world through bold partnerships here.

IGNITE Awards for children: an inverted model of innovation

The NIF and the Honey Bee Network organise IGNITE competitions for new ideas and innovations from children. The youngest child to receive an award from former President of India, Dr. A.P.J. Abdul Kalam, was class one student viz. Chris Ananth from Tamil Nadu last year. The IGNITE model recognises children as inventors who design products. These are then manufactured by engineers and commercialised by companies. When the awards were given out by Dr. Kalam this year, every child was a given a copy of patent application. In most cases, prototypes were also developed as a surprise for the children. In some cases, queries for licensing have already been received. The Future Group with which the NIF has signed an agreement has already agreed to take some of the children’s innovations to market. This is a model that could easily be replicated elsewhere and mentors from around the world could help such children to take their ideas forward.

Techpedia.in: linking technology students with micro, small and medium-sized enterprises and the informal sector

This is a unique SRISTI initiative that already pools roughly 100,000 projects by 350,000 technology students from 500 colleges around the country. It makes it very difficult for anyone to do something that has been done before. The originality quotient has gone up and the innovation quotient is also likely to go up soon. Hiranmay and his colleagues at SRISTI and Gujarat Technical University have organized industrial shodhyatras [learning walks, see below] in various small industry clusters to identify innovations and the issues students are addressing in their final year project work. This cements the link between academia and industry. The problems of grassroots innovators and unsolved social technological challenges are also put on student’s agendas. Many other technical universities are coming forward to join forces with SRISTI and the NIF in taking these initiatives forward. Retired and other engineers and pharmacists, along with other experts, act as mentors to such partnerships and enhance the rate of increased value. The scheme also incorporates a relay project concept. If an idea
is not taken forward at one location one year, students from another institution at another location can take it up and develop a kho-kho model, i.e. relay model, of the project and product development the following year. This may make it possible for India to become a hub of future high-tech outsourcing with high redundancy and via a distributed model platform like techpedia.in at costs that would be difficult to compete with elsewhere. A similar platform for global projects could also be developed to encourage small industry to become more competitive and collaborative.

**Shodhyatra: learning walks**

For the past 14 years, learning walks have been organized every summer and winter in different parts of the country. The idea is to help people learn from within, from each other, nature and the common people. SRISTI has been organizing these walks in collaboration with the NIF and other institutions to honour creative people on their own doorsteps and organize recipe, idea and biodiversity competitions among children, women and other groups. These walks have covered over 5,000 km, providing unique insights into local traditions of creativity and compassion.

**Sattvik: cultural and culinary diversity are highly correlated**

For the last nine years, SRISTI has organised traditional food festivals at the IIMA campus to create incentives for conserving agro biodiversity by mobilizing consumer demand, providing a platform for organic producers to connect with consumers, and creating a market for less well-known but nutritionally richer foods. Cultural and culinary diversity are highly correlated, and we cannot conserve one without the other. Social pluralism is invariably promoted when the recipes of different cultures are acknowledged and encouraged. Lots of women's groups from villages come and sell their products directly to consumers. In India, we have always believed that as we eat, so shall we think. By eating uniform food, we are unlikely to think in a very diverse manner.

**Culturally alive India: documenting folkloric art and culture**

SRISTI has created a small portal for documenting folkloric art, culture and other traditions. The vision is to create a market for village artists so that they can eke out an honourable living without having to dig in the earth and break stones as part of the public works and employment programmes during lean times.

**Educational and institutional innovations:**

SRISTI has also documented innovations by primary school teachers. A database is currently being created. The role of common property institutions is likely to become very important in the years to come as natural resources become more and more scarce. However, there are not too many databases of this kind available around the world. There are also not many formal models that could help generate location-specific sustainable institutional designs for managing commons. This is another area in which a worldwide search for local solutions by communities has to be mounted urgently.

**Sadbhav-SRISTI Sanshodhan: SRSITI’s Natural Product Lab**

With the initial help of a philanthropist, this lab was set up to add value to people’s knowledge and institutions in the area of herbal solutions for plant, animal and human health. An additional initiative for screening microbial diversity to help generate similar solutions was also added. This is perhaps the only lab in India that is exclusively and completely dedicated to adding value to people’s knowledge. There is a huge scope for expanding this initiative to provide affordable, accessible and accountable solutions. SRISTI has licensed several formulas for human and agricultural applications to the private sector, which pays royalties that are shared with the knowledge providers. A large scale benefit-sharing model based on biodiversity and associated knowledge has been developed over the years.
And many others...

There are many other initiatives underway that use the postal and railway departments to mine the minds of the masses. Similarly, pilot projects have been done with Reuters and other electronic communication agencies to share the experience of farmers via SMS and other means. Multimedia, multi language innovation databases are being developed to overcome the three barriers to learning: language, literacy and localism.

The Honey Bee Network is committed to working with like-minded individuals, institutions and networks imbued with the voluntary spirit and collaborative and transparent culture. There is no way we can do justice to the rising aspirations of knowledge-rich, economically poor people without joining hands, pooling insights, uniting compassion and liberating colonized minds.