**Wireless for Communities (W4C)** is an initiative that aims to connect rural and remote locations of India, where mainstream Internet Service Providers are not willing to provide Internet connectivity, through frugal technology and innovative solutions.

W4C involves line-of-sight and low-cost Wi-Fi equipment, which utilise the unlicensed spectrum bands (particularly 2.4 GHz and 5.8 GHz) to create community-owned and community-operated wireless networks in rural and remote locations of India to democratise access and make it available to all. To ensure that the community is also equipped with troubleshoot knowledge, a team of youth from the community are trained in setting up and managing community networks.

Connectivity received through W4C is then used to wirelessly connect DEF’s physical infrastructure hub in the village, and other public institutions such as the local public health centre, primary or secondary schools, village council and aanganwadi kendra among others.
**Smartpur** is a concept designed to create holistically smart villages or digitally-integrated ecosystems where people leverage digital tools to bring efficiency in daily lives, transparency in governance, economic prosperity for households, and ease of access to various kinds of services and information.

The concept of Smartpur emerges from the realisation that the mere availability of digital infrastructure does not make a village smart. Rather it is the integration of technology in the existing practices and processes that contributes to the overall well-being of a village.

With these guiding principles, Smartpur has adopted a rural entrepreneurial-based hub-and-spoke model, which is driven by rural youth and supported by community stakeholders. While rural entrepreneurs at the hub centres provide primary services under six key areas of development—health, education, livelihood, governance, finance and entertainment—rural entrepreneurs at the spoke centres will further redistribute these services in their respective villages.
Community Information Resource Centres (CIRCs) are community-oriented infrastructure and information hubs built to create digitally literate, information-empowered and equitable communities across the country.

CIRCs are usually set up in an easy-to-access, well-populated and safe place in the village. This could be the market area, panchayat ghar or even a house in a dense locality. This allows CIRC to not just become an accessible place for services, especially for women and children, but also a community hub for people to simply gather for conversations. The CIRCs primarily offer digital literacy, digital services, information services, citizen services and business development services to create information-rich society under a sustainable model.

To help run the CIRC, local individuals are identified and trained to become coordinator-cum-service providers in a sustainable manner. The resource person is also responsible for mobilising community members to see the value in adopting digital tools.
Going Online As Leaders (GOAL) is a mentorship programme empowering young tribal women to become leaders of tomorrow. While successful urban women act as mentors to build confidence and aspirations among mentees, DEF trainers impart digital and media information literacy to the students using the in-house digital literacy curriculum and toolkit.

Mentees identified under this initiative are usually located close to one of DEF’s existing infrastructure hubs so that they can access digital tools at will for learning, practice and exploration. Meanwhile, an urban woman is connected to four to five tribal girls, and takes the responsibility of getting on a video call with them every fortnight to discuss with them social issues, solution to barriers, life skills and more.

Over a period of six months, mentees do not only gain digital literacy and media information literacy, but also transform into local agents of change for their respective communities.
SoochnaPreneur is a rural entrepreneurship-based project aimed at empowering youth in Indian villages to sustain their livelihood by providing information and access to government entitlements to those living in information darkness.

SoochnaPreneur is an initiative aimed at supporting, strengthening and enhancing the capacities of grassroots communities to access and avail information and entitlements in critical areas of health, education, social & financial inclusion, livelihood and employment.

Under this project, enterprising youth from the community are identified and trained to become SoochnaPreneurs (Information Entrepreneurs), following which they are equipped with an Android tablet and MeraApp, a mobile application that holds a catalogue of welfare schemes with comprehensive information on entitlements. The SoochnaPreneurs then visit door-to-door, apprising families of the welfare schemes they are eligible for and helping them file applications for the same.
Digital Cluster Development Programme (DCDP) primarily involves inclusive and decentralised use of ICT and other digital tools in critical aspects of cluster development to improve and scale up artisan skills, designs, marketing and entrepreneurship to ensure sustainable livelihood options for the traditional artisans.

Under this initiative, a physical infrastructure hub is set up in the community to offer a wide range of services. Artisan households are hand-held through various training and capacity building efforts—ranging from digital literacy classes, digital design training and digital marketing skills to complementary or vocational courses, digital photography & archival techniques and knowledge of social media and e-Commerce platforms— to directly reach out to the end customer.

Further, in an effort to reduce the gap between the producer and the consumer, DEF has established a social enterprise called DigiKargha, which utilises both online and offline platforms, bringing back sales profits to the artisans.
**Zero Connect** is an innovative, unique and cost-effective solar-powered solution that offers Internet in a box, literally. Designed by Digital Empowerment Foundation, Zero Connect intends to bring into market a DIY plug-and-play configurable wireless networking solution for communities that continue to live in zero connectivity areas.

Zero Connect comes fitted, as expected, in a trolley suitcase-box for easy mobility. The box holds built-in low-cost equipment and frugal technology, including wireless equipment for broadcasting. Once unboxed, the equipment is put together—with the help of a visual user guide—on a DIY 20-feet tower ensemble made of a modified camera tripod and PVC pipes. The solution then acts as a makeshift mobile tower that can be packed into a suitcase and carried to any location.

The DIY ensemble receives Internet connectivity from the backhaul through the radio antennas, using unlicensed spectrum (2.4 GHz or 5.8 GHz) and frugal technology. It then creates a wireless zone, and users can directly access the Internet with unique user IDs and passwords up to 5 km.
In **IP Ville**, every household and public institution is connected to the outside world via Internet and to the inside world via Intranet.

IP Ville is a cluster of five villages, one Hub and four Spoke, with a well-equipped digital resource centre for each of the clusters and a common server linking the five. Every Hub and Spoke centre will provide a range of digital services and information to community members in their respective vicinity. Digitally-enabled public institutions, on the other hand, will be able to increase their productivity and efficiency by leveraging digital tools and technologies, thus improving delivery of public welfare schemes and services.

While the Internet offers community members to access an almost infinite world of relevant information and opportunities, Intranet offers villagers a chance to exchange contextual and traditional information in their local language to fight information poverty. This will eventually strengthen localised content on the server, building a digital repository of local traditions, cultures, folk music, folk tales and knowledge on traditional health, agriculture and other practices.
Facebook Dost is a project that aims to impart digital marketing skills among micro and nano entrepreneurs across rural India in an effort to help them reach out to a larger customer base with their services or products, thus earning an improved livelihood.

Under this project, DEF delivers an especially-designed curriculum through a series of workshops to groups of micro entrepreneurs, MSME representatives, artisans and self-help groups. The project seeks to digitally empower micro and nano entrepreneurs in rural India to reach out to the larger audience base to sell their products in an effort to help them improve their livelihood by leveraging the benefits of a leading social networking platform. The trainings and interactions with micro and nano entrepreneurs also serve as a resource to create a comprehensive database of village-level entrepreneurs and document case stories and success stories of best practices in various audio-visual formats.
SHE Hosts stands of Sustainable, Hospital and Entrepreneurial. SHE Hosts is an entrepreneurship-based project that seeks to enhance livelihood opportunities for rural women through the promotion of local art, craft, culture, tradition and history in the form of experiential tourism.

People in rural parts of India, especially women, still lack awareness regarding various livelihood opportunities because of low level of literacy and limited realisation of surroundings. Local attractions and grassroots experiences often go unnoticed due to low hospitality standards.

Under this initiative, DEF trains rural women in digital literacy, hospitality skills and entrepreneurial abilities, encouraging them to operate and maintain home stays and other activities in their respective regions to promote sustainable and experiential tourism, thus impacting the local economy. The project aims at nurturing rural women into women entrepreneurs for improved households incomes; supporting rural economy through appreciation and promotion of local art and culture; and creating digital knowledge pool by documenting indigenous art, history and culture.