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**He is back in the corridors of power. Pitroda, who transformed India's telecom landscape in the 1980s, is now busy strategising on how to use the Internet for social transformation**

**E**very few weeks, Sam Pitroda packs his bags at his home in Chicago, USA, and flies down to India. During the couple of weeks or so that he is here, Pitroda's days are crammed with meetings, discussions, debates and lectures. He meets with politicians of different hues, bureaucrats from different ministries, industrialists from different sectors and many others from all walks of life. Through it all, there is one key thought ticking away furiously in his mind. The man, who many believe transformed India's telecom landscape back in the mid-1980s, is now consumed with how information technology and the Internet can be used to expedite the process of modernisation in India and bring about social transformation.

In fact, one big regret the 67-year-old Pitroda has is that he did not visualise the over-arching impact of the Internet early enough. "When I came to India in the 1980s, I could only see the idea of connecting people through telecom. Professionals like me knew about networks and that people would be connected through these networks, but we had no idea how that would happen," admits Pitroda candidly. "But over the years, we have all seen how the Web has changed the paradigm completely."

That is not all that has changed. In 1981, when the US-based Pitroda (he left India in 1964. See *Pitroda timeline*) first wanted to play a role in shaping India's telecom infrastructure, he was pretty much a 'nobody' here. Yes, he had worldwide patents in the area of

*Pitroda: can he deliver on his vision?*

telecommunications and had built a successful business in the US (in an article in the *Harvard Business Review* in 1993, Pitroda says that by 1980 he was a self-made telecommunications millionaire), but he had to really struggle to get himself heard by the political leadership in India and convince them of his telecom pitch.

It took Pitroda many visits to India and a lot of lobbying over the next few years before his strategy for developing telecom in India got accepted. In 1984, he got government funding to set up and head the Centre for Development of Telematics, better known as C-DoT – an autonomous entity to develop state-of-the-art telecommunications technology suited for India (see box: C-DoT). Pitroda then became famous for developing the small and rural exchanges and the PCO/STD booths that helped connect the remotest parts of India.

With opposition at every point from various quarters, this was in no way an easy task and it was the famous rapport that he built with Rajiv Gandhi, first as Prime Minister Indira Gandhi's son and then himself as prime minister (1984 onwards), that helped paved the way for Pitroda.

In fact, so impressed was Rajiv Gandhi with Pitroda, that in 1987 he

## Sam Pitroda timeline

**Original name:** Satyanarayan Gangaram Pitroda

**Birth:** Orissa, in the village of Titilagarh, 16 Nov 1942

**Education:** Anand Vallabh Vidyalaya, Baroda; Masters in Physics and Electronics, Maharaja Sayaji University, Baroda; Masters in Electrical Engineering from Illinois Institute of Technology, Chicago, USA, 1964

**Career:**

**1966:** Focussed on digital communications at GTE, Chicago

**1976:** Set up Wescom Switching, one of the first digital switching companies in the world

**1978:** Introduced a new system called the 580 DSS, considered rather revolutionary at that time

**1980:** Sold Wescom Switching to Rockwell International (media reports say for \$40 million), stayed on in a senior management position

**1984:** Formed C-DoT in India

**1987:** Appointed Adviser to Prime Minister Rajiv Gandhi on National

Technology Missions

**1989:** Appointed chairman of India's Telecom Commission

**1991:** Returned to the US after Rajiv Gandhi's assassination

**1995:** Founded WorldTel to help develop telecom infrastructure in less developed countries

**1998:** Founded C-Sam, a Chicago-headquartered software firm, specialising in mobile phone-based transaction technology; continues to be the CEO in this privately held company

**2004:** Returned to India to campaign for the Congress party in the general elections and then became a member of the National Advisory Council, headed by Sonia Gandhi

**June 2005 to March 2009:** Chairman of the National Knowledge Commission

**July 2009:** Head of the Expert Committee on ICT in Railways

**October 2009:** Appointed Adviser to the Prime Minister on Public Information Infrastructure and Innovations with the rank of Cabinet minister

made him Adviser to the Prime Minister on National Technology Missions with the rank of minister of state. In this role, Pitroda's task was to strategise for six different areas: telecom-

munications, drinking water, immunisation, oilseeds, dairy production and literacy. Buoyed by Rajiv Gandhi's support, Pitroda even gave up his American citizenship to take

## C-DoT: more than just technology

**R**s36 crore and 36 months. That's what Sam Pitroda got from the Indian government to set up the Centre for Development of Telematics (C-DoT) in 1984. The mandate given to him was to develop a digital switching system suitable for Indian conditions. For himself, as principal adviser, Pitroda took a salary of one rupee per year. Pitroda says that he was there for a cause and in order to succeed with C-DoT, he had to place himself above the suspicion of greed and self interest.

Pitroda put together a team of young engineers and got cracking. And how! They started work from five rooms that were given to them in a run-down government hotel in New Delhi and in the early days, used the beds as desks! Pitroda

was most bullish about the talent and capability of Indian engineers and firmly believed that given the right work environment and motivation, there was nothing that they could not accomplish.

C-DoT was set up as an autonomous body and Pitroda put his stamp on it. Based on his American experience, he created a non-hierarchical work environment. He set impossible targets, emphasised action, team work, risk and flexibility. He also did his best to ensure that there was no interference from politicians and bureaucrats.

Pitroda's methods were unconventional, but he delivered. Within the three-year limit, C-DoT came out with a 128-line rural exchange, a 128-line private automatic branch exchange for

businesses, a small central exchange with a capacity of 512 lines and was ready with field trials of a 10,000-line exchange. All this was being manufactured in India as per international standards. Most importantly, Pitroda and C-DoT gave Indian engineers confidence in their capabilities.

Infosys' Narayana Murthy ranks Pitroda's work at C-DoT along with M.S. Swaminathan's Green Revolution, Vikram Sarabhai's space revolution and Yash Pal's Satellite Instructional Television Experiment (SITE). "Connecting the remotest parts of India with Delhi and other state capitals is one of the most important contributions of recent times," says Murthy. Adds Som Mittal of Nasscom, "Sam empowered young engineers and encouraged them to push the envelope. That was something truly extraordinary."

♦ MS

## 'It will be well worth the investment'

The Unique Identification (UID) programme, which will document every Indian resident and give him a unique identification number, is an important part of the public information infrastructure. In June last year, **Nandan Nilekani**, co-chairman, Infosys Technologies, was brought on board to head the Unique Identification Authority of India as its chairperson, with the rank of Cabinet minister. While the initial outlay for the programme was Rs120 crore, in the recent budget, Rs1,900 crore has been allocated for the project. Nilekani talks to **Meenu Shekar** about the current status and other aspects of the programme

### What is the current status of the UID programme?

A lot has happened in the past few months and things are moving on track. In August last year, we published the draft approach strategy. Then, we came out with the data verification standards. After that, we came out with the biometrics standards. Soon, we will be appointing a consultant to help us draft the final RFP (request for proposal) to appoint our managed service providers – the entity that will run the operations for us. We have also come out with the tenders for the application software. We have a team in Delhi and a technology team in Bangalore. We are opening eight offices across the country. We are currently a team of 20-30 people. It will grow to be a few hundred at best.

### Can you share some of the operational details with us? How will individuals enrol for the programme?

Enrolment will be through various

registrars. Say, you come to create a ration card; if you already have a UID number, then you will be given a UID-enabled ration card. But if you don't have a UID number, they will enrol you on our behalf, collect data from you on yourself and hand it to us. We will check if you already have a number or not. If you don't, we will issue you your UID number. The same will happen when you go for a bank account, life insurance, income tax, passport, etc. All these entities will be registrars who will enrol you on our behalf.

### What is the total project cost for the UID programme? How will the project become self sustaining?

We don't have a full fix on this; so it is difficult to put a number. What I can say is that overall, it will be well worth the investment. What we have said in our approach is that once we reach steady state, we will get revenues from authentication and this could offset part of the



cost, but that's a long way down the road.

### At present, it is positioned as a voluntary programme. Will it continue to be voluntary?

UID is voluntary from our side. But if a particular programme, say the NREGP or a state's ration card programme, says everyone within that programme must have a UID to avail of the benefits, then they can make it mandatory. The income tax department, for instance, can say that all PAN cards must have the UID. Ultimately, it will be demand-driven.

### How will you ensure that those outside

on this position. In 1989, Rajiv Gandhi also made him the chairman of India's first Telecom Commission.

### Back to business

But Pitroda's run in India changed with Rajiv Gandhi's fortunes. When Rajiv Gandhi lost the elections in 1989, Pitroda came under political attack and was accused of corruption. It was alleged that the businesses his family owned in the US had profited from the contracts that he had awarded while heading C-DoT. Pitroda was later cleared of these charges, which were found baseless, but when Rajiv Gandhi was assassinated in 1991, Pitroda lost heart. He returned to the US and got back to

business (see *Pitroda timeline*).

This time round, though, it is a different story. Thanks to his proximity to the Gandhi family and his earlier track record, Pitroda has the ear and the confidence of the country's top political leadership. So, when Pitroda, in his characteristic manner of listing items, now reels off what information technology and the Web bring to the table – openness, accessibility, connectivity, networking, democratisation, decentralisation, accountability and thereby social transformation – he has a ready audience.

Pitroda now has a role tailor-made for him. He is the 'Adviser to the Prime Minister on Public Information Infrastructure and Innovations'. The

position, which was announced in October 2009, holds the rank of Cabinet minister. Other positions that Pitroda currently holds include heading the Expert Committee on the use of ICT (information and communication technologies) in Railways and also the BSNL Review Committee.

Pitroda has, in fact, been back in the corridors of power for the past few years. Just before the general elections in 2004, Pitroda called Sonia Gandhi and told her that he wanted to campaign for the Congress party. When the Congress-led UPA came to power, Pitroda found a place in the National Advisory Council (NAC) under Sonia Gandhi's chairmanship. Then, from June 2005 to



**the system will be included in the UID programme?**

We will have a special programme to reach out to the marginalised. We will work with the government and NGOs who work in different sections of society, like the homeless, tribals, physically challenged, etc, to get them enrolled.

**What have the key challenges been for you, till now?**

This is a large and mammoth exercise of unprecedented scale and complexities. So, the challenge has been to get our hands around the complexities – to come out with appropriate technology architecture, an enrolment strategy, to get the people in place. Then, security, privacy, data theft are all issues that we need to worry about. Like any large complex online project, we need to have a strategy for this and we are working on it. It is a gigantic start-up kind of a situation. Something like this at the scale and speed that we are aiming for has never been attempted before anywhere else in the world.

**When do you expect to start issuing the numbers by, and how many do you expect to issue in the first year?**

Our goal is to start issuing numbers sometime between August this year and February next year. We are on target on this front. We are not saying how many we will issue in the first year, but we expect to issue around 600 million numbers in five-and-a-half years. ♦

March 2009, he was made chairman of the National Knowledge Commission (NKC) – a high level advisory body to the prime minister.

The story goes that during his NAC days, Pitroda started looking at what was happening in the science and technology and education space in the country and what he could do in these areas. He then put together a presentation on the broader concept of 'knowledge' and presented it to Prime Minister Manmohan Singh. Among other things, Pitroda's presentation recommended the setting up of a National Knowledge Commission. Singh not only gave the go ahead to set up the NKC, but also made Pitroda its chairman. The

mandate of the NKC was "to prepare a blueprint for reform of India's knowledge-related institutions and infrastructure to enable the country to meet the challenges of the future" (see box: *On the knowledge track*).

Once the NKC term got over, Pitroda started looking at what next 'big thing' he could work on. He zeroed in on two areas he felt were important for India's growth: a robust and state-of-the-art public information infrastructure and a culture of innovation. As in the case of NKC, Pitroda got the green signal from the top brass. In this current role, Pitroda is to advise the prime minister in the following areas: operationalising the integrated National Knowledge Network to connect all knowledge institutions; overseeing broadband connectivity to panchayats and enabling citizen interface to improve public services delivery and citizen empowerment; promoting greater use of ICT in public transport system; promoting use of ICT in the justice system; and developing an action plan for a decade of innovation.

Pitroda has been given a room at

Yojna Bhavan in New Delhi, just down the corridor from the room of Montek Singh Ahluwalia, deputy chairman, Planning Commission. The role also entitles him to an officer on special duty in the rank of joint secretary or above to assist him, a team of six young professionals for support functions and a budget and accounts officer. Pitroda, however, does not have any implementation or execution authority.

**The big picture**

Pitroda is unfazed by this. "My interest is not to have a team under me and to move files," he says. "There is already enough institutional infrastructure in the government. There is the Planning Commission, the NIC (National Informatics Centre), the different ministries, the various departments and what have you. What I want to do is to provide the big picture, to co-ordinate, collaborate, bring everyone together and empower and motivate them" – which is exactly what he did at C-DoT. To drive home his point, Pitroda adds emphatically, "I don't look at this as a job. I just look at what



*Murthy: 'we have to rise above differences'*

## On the knowledge track

**T**he National Knowledge Commission (NKC) headed by Sam Pitroda was set up in June 2005 and its term ended in March 2009. It had its roots in the growing realisation that India's ability to emerge as a globally competitive player depended on its knowledge resources. In line with this, the mandate for Pitroda and his team was to prepare a roadmap to reform the knowledge sector in India.

Articulating his vision for the NKC, Prime Minister Manmohan Singh had then said, "The time has come to build a second wave of institution building, and of excellence in the fields of education, research and capability building."

Pitroda had a team of eminent personalities:

- Nandan Nilekani, at that time the co-chairman at Infosys Technologies;
- Ashok Ganguly, former chairman, Hindustan Lever, and now, chairman, Firstsource;
- P. Balaram, director, Indian Institute of Science, Bangalore;
- Jayati Ghosh, professor of economics and chairperson of the Centre of Economic Studies and Planning, Jawaharlal

Nehru University (JNU);

- Deepak Nayyar, professor of economics, JNU;
- Sujatha Ramdorai, professor, Tata Institute of Fundamental Research; and
- Amitabh Mattoo, former vice chancellor of the University of Jammu.

The group focussed on five broad concepts – access to knowledge, knowledge concepts, creation of knowledge, knowledge applications and delivery of services. Within these, they then identified various areas like school and higher education, vocational training, knowledge network, health information network, portals, intellectual property rights, innovation, agriculture, e-governance and others.

The NKC formed working groups comprising domain experts, held workshops and seminars, and had many consultations with different stakeholders; over a four-year period, it came out with around 300 recommendations. These include enacting a Central legislation on the Right to Education, teaching of English as a language from class 1, creation of 50 National Universities, establishing an independent regulatory authority for

higher education, building a national knowledge network, etc.

While the NKC's recommendations have, by and large, been welcomed by stakeholders, they have not created any major waves. They are seen to have got sidelined because of political differences, as well as lack of a well-defined follow-up mechanism.

"The NKC had a set of amazing people and came out with outstanding reports and recommendations, but because of the political environment, much of it got assigned to the dustbin," says S. Sadagopan, director, IIT, Bangalore. "I have no doubt that the NKC has done a good job, but its report had been put on the backburner under the previous HRD ministership. We have to rise above these differences," adds Infosys' Narayana Murthy.

Sujatha Ramdorai feels that the government should also have laid down an implementation plan. She explains why: "Our mandate was only to recommend and not to implement or execute. It was completely unclear as to what the follow-up was going to be." Ramdorai gives a simple example – setting up of libraries. "One would think that this is a

needs to be done for the country. If I can't do it, I will find someone to do it and if I need to touch his feet to get it done, then I will touch his feet." Pitroda incidentally does not receive any salary for this position. He says he pays from his own pocket for his travel and stay.

Those who know Pitroda well vouch for his high energy levels, his enthusiasm and commitment. "I have seen him land in Delhi on an early morning flight from Chicago and then plunge into a dozen meetings through dinner. He is absolutely tireless in his efforts," says Nandan Nilekani, chairman, Unique Identification Authority of India (UIDAI). Pitroda, adds Nilekani, looks at everything in a 'what-can-be-done' approach, as opposed to 'why-it-cannot-be-done'. "This kind of spirit is important to drive change in the system," says Nilekani. Ashok Ganguly, now also a Rajya Sabha member, describes Pitroda as a 'karmayogi'. "He



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*Mittal: 'India lacks and needs a fabric of IT infrastructure'*

is a great doer; hugely committed and very goal and task-oriented," says Ganguly. Both Nilekani and Ganguly were members of the NKC.

N.R. Narayana Murthy, chairman and chief mentor, Infosys Technologies, sees Pitroda as "one of those rare individuals who can connect the 50,000 ft view of any issue with the ground level nitty-gritty". "Sam can not only come out with a good policy, but he can also get it implemented," says Murthy. P. Balaram, director, Indian Institute of Science, Bangalore, and an NKC member, says that Pitroda's thinking is "futuristic and big" and that "he has the ability to get to the core of a problem without getting distracted by the peripheral issues and then work out practical solutions". Ashok Soota, executive chairman, MindTree Ltd, describes Pitroda as "warm, helpful and open to debate and discussions". Soota adds, "At an apex level probably there is no other person in the country who has

non-controversial area and that everyone would agree that having a library at the panchayat level is good. So, why has it not happened, even five years after these recommendations were made?"

P.M. Bhargava, former founder-director, Centre for Cellular and Molecular Biology, Hyderabad, who was the vice chairman of the NKC before parting ways because of differences with Pitroda, gives another take. Bhargava says that the Commission functioned in an ad hoc manner without a proper agenda. "This eroded the credibility of the Commission and as a result, even good recommendations were brushed aside."

On his part, Pitroda claims to be satisfied with the way the recommendations of the NKC have been taken forward. "In the NKC recommendations, we had said that we need something like UID, and now Nandan is doing that. Work is also happening with the National Knowledge Network. Various other initiatives are also being taken up. These things don't happen overnight. They take time," he says.

One hopes that Pitroda's current role will help to speed things up.

♦ MS

spanned both continents the way Sam has."

Pitroda is also considered a great motivator and many believe that along with technology, his biggest contribution in the 1980s was to have motivated a set of young scientists and engineers to work within a limited framework and limited resources. "There are clearly a large number of people who can deliver more than what they are delivering," says Sujatha Ramdorai, professor, Tata Institute of Fundamental Research and an NKC member. "They only need someone who can motivate them – someone with a vision. Sam was probably among one of the first to make it possible in the work environment in this country." She adds, however, that Pitroda sometimes tends to be too impatient, which at times, can "become counter-productive".

Jayati Ghosh, professor of economics and chairperson of the Centre for Economic Studies and Planning at the



PALASH RANJAN BHADURICK

*Ramdorai: implementation plan for NKC*

Jawaharlal Nehru University and also an NKC member, who admires Pitroda for his vision and enthusiasm, points to another facet. Ghosh says that because Pitroda himself has overcome social and economic barriers, despite being born in a small village in Orissa, he does not recognise many issues like caste and class as constraints. Ghosh agrees that sometimes this approach can be inspiring, but points out that it also has its limitations. "Sam tends to be impatient and dismissive of many of these complexities. This may not necessarily be the right approach for a complex society like India," says Ghosh. She adds that Pitroda also tends to get easily impressed with consultants from outside the country, leading to "an unnecessary imitation of institutions from abroad".

### Differing views

There are other shades to Pitroda too. P.M. Bhargava, vice chairman, NKC, who left the commission midway because of differences with Pitroda, says that he is "arrogant, autocratic and dictatorial". Then there are those who think of Pitroda as "a visionary more by default than design". Pitroda



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*Ghosh: admires Pitroda's vision*

is also perceived as someone who considers himself to be on a different pedestal, who tends to limit his interactions to the elite and is disconnected from the ground realities of India.

S. Sadagopan, professor and director, International Institute of Information Technology, Bangalore, who describes Pitroda as a "go-getter, a fairly successful entrepreneur and also a good businessman", points out that "being quite ambitious, Sam likes to be in the vicinity of the power circles". Sadagopan is quick to add, though, that this in no way takes away from Pitroda's ability to deliver. "There are lots of people who can come up with great ideas, but will not take the necessary pains to see the ideas through. We should give due credit to Sam that he does."

So, in his most recent *avatar* as Adviser to the Prime Minister on Public Information Infrastructure and Innovations, what exactly is Pitroda's vision for India?

Pitroda's excitement is palpable as he gets talking about what he believes needs to be done. He quickly pulls out a crumpled sheet of paper from his pocket and points to a diagram that





PALASH RANJAN BHADURICK

*Ganguly: describes Pitroda as a 'karmayogi'*

he has drawn. "See, today, every service – be it getting a birth certificate, driving licence, ration card, passport, bank account or government programmes like the National Rural Employment Guarantee Programme (NREGP) and others – is in a vertical silo. Not only that, every state is also doing its own thing. There is no proper data and most things are still done manually. As a result, everything is a total mess. My idea is to build an information infrastructure for all these services and make it transparent and accessible to everyone."

Isn't that similar to what Nandan Nilekani is doing with his UID project? Pitroda is ready with his answer. He turns to his diagram and says, "For the first time in the history of this country, we have a billion connected people. The first step is to document these billion connected people. That is what Nandan's UID project is all about (see Nandan Nilekani's interview: *'It will be well worth the investment'*). When Nandan documents the billion people, we will get a hook somewhere in the system. At the same time, we have to design hooks to interconnect all the vertical silos and also connect all these services to just about everything else. And all of this has to be on the cloud and also device-agnostic. Then, just as in the case of

people and services, we need to provide a robust information infrastructure to our physical locations." Pitroda says all this may well take 5-10 years, but once it is in place, "we will have a whole new world".

If some of these sound confusing and vague, don't lose heart. Pitroda admits that the details of how all this will actually take shape is yet to be worked out. Right now, he says, he is



*Soota: Pitroda is warm and helpful*

socialising the idea, getting opinions from others and fine-tuning his own thoughts. "The big challenge is that no country across the world has attempted anything like this, on this scale," says Pitroda.

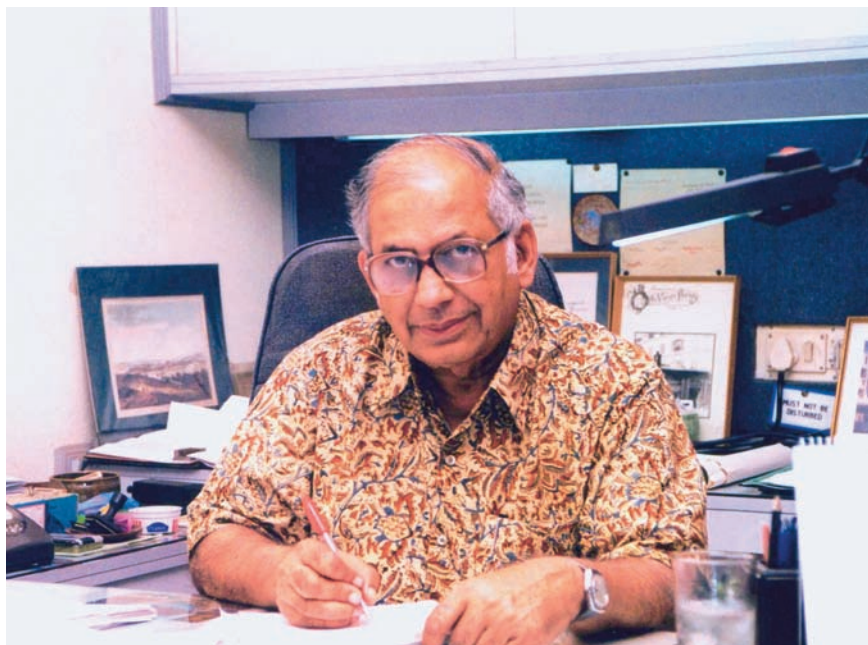
### National Knowledge Network

One of the main areas Pitroda is currently focussing on is the National Knowledge Network, a high speed data communication network that will interconnect all knowledge and research institutions across the country. The National Knowledge Network is one of the key recommendations made by the NKC. Pitroda is a member of the High Level Committee (HLC) set up by the government to co-ordinate and monitor the setting up of this network.

"This will be a multi gigabit per second (Gbps) low latency network and once it is in place, collaboration and interaction between various knowledge institutions will become extremely smooth," explains R. Chidambaram, principal scientific advisor to the government of India, who heads the HLC for the National Knowledge Network. "It will serve as a data network highway and all other networks in the country can take advantage of this nationwide ultra-high speed backbone." Describing the National Knowledge Network as the "mother of all networks", S. Regunathan, member, HLC, and former chief secretary to the Delhi government and also an advisor to the NKC, says that ultimately, this network will be the key to the public information infrastructure. "The next phase of economic development is going to be based totally on knowledge and this network is capable of putting India on a different orbit," says Regunathan.

Some of the major applications identified for implementation and delivery on the National Knowledge Network include education, health, e-governance, agriculture and grid computing. In the initial phase, a core backbone consisting of 15 points of presence has been established with 2.5 Gbps capacity and around 40 institutions of higher learning and advanced research have already been connected to this network.





*Bhargava: not seeing eye-to-eye*

Pitroda has a long list of other areas that he is focussing on. For instance, he is looking at how 2,50,000 panchayats can be linked to the national broadband infrastructure by using the existing fibre optic networks in the country. In the health sector, he is looking at what can be done in areas like health literacy, health information network, electronic health records and emergency management systems. Then, in judiciary, he wants to see how the judiciary processes can be re-engineered and how ICT can be used to reduce the time for justice from the current 15 years to three years.

Similarly, as head of the Expert Committee of the use of ICT in Railways, Pitroda is focussing on how to implement modern electronic signalling systems – real time systems to monitor train schedules and freight management systems, etc. In every area, the intention is to improve productivity and efficiency and reduce costs.

The key, Pitroda says, is to be innovative and think out of the box. "Till now, all innovations in India have been to meet our needs. They have not been disruptive innovations. We need to have innovations that will change the paradigm." Pitroda's strategy for fostering an innovative

mindset has four pillars: providing a broader platform for innovations; encouraging innovations for inclusive growth; focussing on key drivers like generational changes and not incremental changes, durability and not disposability; being locally relevant and globally competitive and building the necessary ecosystem.

There is no doubt that what Pitroda is talking about is very much



SORAB MEHTA

*Sadagopan: giving due credit*

what India needs. Infosys' Narayana Murthy puts it in a nutshell, when he says, "India's big challenge is to meet the rising aspirations amongst the people, especially the youth. If their aspirations are not met, it will result in wide social unrest. Information technology, innovations, higher education will all have to play a critical role in delivering the opportunities to meet these aspirations." Som Mittal, president, Nasscom, adds, "Very clearly, India lacks and needs a fabric of IT infrastructure that reaches out to every nook and corner of the country and to every person, in order to execute on the country's vision of inclusive growth. You can't have a country that is growing at 9 per cent and have a large part of the society not being part of this growth."

### **Jury is fractured**

The real question is, can Pitroda *deliver* on his vision? Can he, in this current role, make a difference? After all, it is not as if other people have not been thinking along these lines.

The jury is fractured. Some believe that Pitroda has both the vision and the ability to bring about a transformational change. His relentless emphasis on disruptive changes breaks down years of bureaucratic obduracy and gets things moving. Others, however, disagree. They feel that his current canvas is far too large for him to make any significant impact. They point out that one reason for Pitroda's success in C-DoT (some even believe that he got a lot more credit that he actually deserved) was that he had a clear mandate and a defined time period. On the other hand, as advisor to Rajiv Gandhi for the six technology missions, the impact that he created was minimal.

A Pitroda watcher puts it succinctly, "I would rather have Sam Pitroda focussing on a few areas with end-to-end implementation responsibility and authority than painting on this large canvas. Because anyone can advise and everyone is free to ignore the advice."

Of course, time alone will tell if and what Pitroda will finally achieve. For now, it is over to Pitroda.

♦ MEENU SHEKAR