sensitivity among the educated and the elite, is the major cause of backwardness of our people, and it has prevented our nation in obtaining the maximum benefit out of the talent pool available in the country. One can seldom find a scientist honestly analysing the accomplishments of his colleague, let alone bestowing praise and accolades upon him, when obligatory. This tendency of scientists has generated a strong public perception that scientists are heartless and inhumane people.

There is an urgent need to initiate a public debate, led by experts and intellectuals, to make our institutions more efficient, responsive, and people-friendly and promote genuine scientific advancement and a healthy competition among all the players. There is also a need to create adequate space for amateur researchers, and retired scientists and professors. This will ensure the beneficial utilization of the rich potential of skill and brains available in the country. Unfortunately, there is no independent body in place today that caters to the needs of amateur researchers and retired professionals. An unbiased promotion policy and effective regulation of the research activity will help sincere workers, especially freelance researchers, a great deal. Such a body will be of great help in giving much needed help and recognition to those science workers whose primary objective is to earn pleasure and intellectual satisfaction, rather than money. It would not only provide all the necessary logistics and support required by the workers, but also provide a platform for healthy and progressive discourse among researchers. It will also lay down mandatory guidelines for effective regulation of research activity, and prevent waste of resources, by checking unnecessary duplication of work.

This move will help a great deal in inculcating scientific temper and popularize science among the masses, because scientific research cannot and should not remain a personal fiefdom and hegemony of a privileged few. The scientists will also win greater public faith and reverence, as a result. Our science policy must be more people inclusive, than it is today. Only greater participation by the people will ensure that science gets the best available talent and the existence of a healthy and vibrant scientific community in the country.

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Time to publish: The scientific efficiency of nations

The scientific impact and wealth of nations has been studied in great detail in recent years. In this short note, we propose a very simple indicator for measuring the scientific efficiency of the R&D work force of a country. Most of the scientometric data for countries is now organized using indicators which reflect the number of full time researchers deployed by the country per million of population (say S scientists/million) and also the number of papers published in *Science Citation Index* (*SCI*) based journals per million per year (say P papers/million/year). The ratio $TtP = S/P$ will then have the curious units: years/paper/scientist. TtP is therefore a notional indicator that measures the average number of years a scientist takes to publish an *SCI* paper. This is a proxy for the scientific efficiency of the nation's workforce. Table 1 gives an interesting comparison for some leading countries in scientific R&D.

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Table 1. Time to publish: The number of years it took for an average scientist to publish an *SCI* paper as per data pertaining to 2002–03

Country	FTER/Million[1]	Papers/Million[2]	TtP
Israel	1,563	1018.46	1.53
New Zealand	2,197	745.12	2.95
Switzerland	3,592	1119.96	3.21
Netherlands	2,572	800.21	3.21
UK	2,666	796.48	3.35
Denmark	3,476	933.34	3.72
Canada	2,978	747.56	3.98
Austria	2,313	573.96	4.03
Greece	1,400	328.86	4.26
Australia	3,439	773.17	4.45
Sweden	5,186	1136.65	4.56
Spain	1,948	394.26	4.94
France	2,718	523.86	5.19
US	4,099	706.79	5.80
Singapore	4,052	676.5	5.99
Germany	3,153	525.14	6.00
Norway	4,377	715.28	6.12
Brazil	323	45.26	7.14
Finland	7,110	974.24	7.30
Portugal	1,754	227.68	7.70
Argentina	684	83.33	8.21
Poland	1,474	160.31	9.19
S. Korea	2,880	256.51	11.23
Japan	5,321	452.78	11.75
India	157	11.34	13.84
S. Africa	992	52.9	18.75
China	584	19.17	30.46
Russia	3,493	109.5	31.90

[1]FTER: Full Time Equivalent Researchers per million people (from Human Development Report 2004).
[2]Papers/Million: Per capita output of S&E articles 2002–03 (from Science and Engineering Indicators 2006).