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## Engineering Services Offshore

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# Globalist Pipe Dream: Everything Offshore

by Marcia Merry Baker

ESO—Engineering Services Offshore—is currently in the headlines as the new frontier of global outsourcing for everything from engineering design for autos, to aircraft, to construction. A new report lauding ESO, and promoting India as a potential world center, was released this Summer by Booz Allen Hamilton, the U.S.-based management consulting firm, which operates on behalf of globalization, and by Nasscom, the Indian association for IT (infotech) services and software. Were the report's crazed vision to come true, it would be both a vast subversion of economic potential in the subcontinent of India, as well as a sharp downgrading of physical economic production everywhere. The following are the parameters involved, according to press coverage of the Nasscom/Booz Allen research by the New Delhi *Business Standard* and by Global Services Media.

At present, it is estimated that of the total world market for engineering services of \$750 billion, about \$10 to \$15 billion is conducted offshore. This must be increased, asserts the report. Of the engineering that is being outsourced today—to China, Russia, Eastern Europe, India, and so on, about 12%, somewhere between \$1.2 and \$1.8 billion, is conducted in India. The report asserts that this could and should increase to \$40 billion by 2020.

Taking this globalist scheme on its own terms, the implications are wild-eyed. Currently, there are 35,000 engineers working in engineering services in India. To fulfill the ESO 2020 target, this number would have to reach 250,000. The network of 1,400 engineering schools are not geared to mass producing ESO functionaries. Stuffing students into world-class institutions like the Indian Institute of Technology is no recourse.

Then there is the matter of operations infrastructure for the intended ESO expansion—telecommunications infrastructure, residential and workplace infrastructure, including water, housing, power, and education. At present, Bangalore is the leading city in India for doing outsourced infotech services of all kinds. The new 2020 goal to capture a first-place share in the world ESO market, would require the equivalent of *eight new Bangalores in 14 years!*

No matter, says the Nasscom Chairman B. Ramalinga Raju, who is also chairman of a leading ESO company, Satyam Computer Services. Raju said, in an Aug. 5 Global

Services Media article, "Today globalization of innovation is being spearheaded by the largest spenders on innovation, in terms of both regions and sectors. . . . To target the maximum potential revenue of \$40 billion by 2020, all important stakeholders including the government of India, academic institutions, service providers, and trade bodies such as Nasscom will need to take serious measures."

### Auto in the Forefront

The financial and corporate interests Raju is asking the Indian government to serve, are simply the many heavy industry companies now going global in the extreme. In the same Aug. 5 article, titled, "Engineering Services Offshoring: Finally in the Limelight," a review of some of the companies using ESO is given.

Auto is the leading sector making use of ESO in India, including General Motors, Delphi, Ford, and Daimler Chrysler. The automakers increasingly demand "partnering" by U.S. machine-engineering shops with Indian computer-design companies; the result is the replacement of hands-on machine and tool engineering, with computer-designed machine tools, designed in one country, produced in America. Many American tool-designers refuse to participate in this "benchmarking" of tools; and the bad results of computer benchmarking—rather than physical testing—of cars like the Mercedes Smart car, backs them up.

Besides design work, there are other kinds of infotech outsourced in India by Delphi and Ford.

For construction engineering, several of the world's largest companies obtain ESO in India, including Bechtel, Butler, Fluor, and Lurgi.

Looked at in terms of the major India-based IT-service companies—which are used as third party providers—the same corporate client lists appear, along with major aviation and energy companies. TCS, which has more than 1,000 employees in IT-services, does work for Delphi, Ford, and Boeing. Infosys does work for Delphi and Boeing, and also has as clients, Airbus, Siemens Energy, and Automation. HCL has a client roster including Delphi and Boeing.

Internationally, there are a number of companies, not only offering engineering services potentially offshore, but targetting automotive/aerospace. The list includes Axis, Geometric Software, Hero Global Design, Infotech Enterprises, Mahindra Engineering Services, and several more.

What is happening in auto, for ESO in India, is shown by the case of Suzuki, reported in the Aug. 7 *Business Standard* article, "Engineering Change." The Indian company Maruti has Suzuki as its major shareholder. Suzuki "has announced that by next year all of Suzuki's design and development for cars in Asia outside of Japan, will be done by Maruti. The Indian firm houses Suzuki's biggest testing facility outside of Japan, and its engineers did all the re-designing of the Zen, something done by the parent earlier, and they were an important part of the team that designed the Swift."