

A comment for Darel' presentation

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It's very hard to tell about privatizations of SSP or SPS. But of course there is a general trend that the national government, each government can not afford gigantic budget for any national project in the future, and this is so in the near future especially in Japan, and the same probably of course in US or another Europeans. So the points which are stressed are quite understandable and believable.

However I'm very concerned about the implementation of SSP or SPS from private sector only at first. Because private sector always has tendency to avoid very big miss commercial. So we do, I believe that we do need to push for much more on governmental side at least to get some fraction of budget to this project. And the easiest way is to ask government to prepare the so-called infrastructure especially in space.

And then the commercial private sector would probably then follow to go some capable facilities to collect electricity from space. That means rectenna site at least, what I understand, Professor Collins and his colleagues are working for around the world. This is very important and also another resonance which I felt in the talk is immediate actions for SSP at this moment.

It's because I have been reading many journals and trends overall, and felt strongly that the petroleum which faces serious shortage in coming two to three decades at the latest. Then also of course that could be covered by another form of energy of power supplier such as atomic power or nuclear fusion, but nuclear fusion to my understanding is far away now maybe at least another half a century or so. Increases probably and definitely comes much slower than that time.

So we do need to rely on either atomic power or SPS and I believe personally the latter is much safer from the total risks to avoid the carbon dioxide emissions and also to avoid the possible radiation hazard. Definitely Doctor Preble finally mentions that it is crystal clear that SSP is almost mandatory for mankind to start right away. I really resonate to that part.

However if you can not be optimistic, the future of mankind would be dark. Because most of the human nature is to think about the near future such as ten years or at most 15 years. These days government says even to national university to pay back in three years. Even in any case we propose the budget to the

government, or five years they say all the time that how much you can refund us and return in three years or five years. That means long time research and long time project is very difficult these days.

However of course I believe that we all scientists and engineers which for Professor Nagatomo I would like to mention and give first priority. Engineers should make an access to the political part and generalists, which unfortunately we have to admit that we have been weak in that point, discuss with Darel when he visit here the university that in Huntsville in the U.S., people support SPS by a ratio of 80%, did he say? 70-80% very high range of a citizens about SPS as the next step space program.

However on the contrary in Japan we know that Mitsubishi Soken already took a questionnaire to the general public, and turned out the general people, general public in Japan knows SPS with a ration less than 2-3%. It is not known to people.

However one hopeful comment on that questionnaire is that those people who said there is no knowledge about SPS for us, but when it was explained to them by some kind of summary report; they replied showing positive, negative to SPS or against SPS; the result was much in favor. I don't recall the exact number, but probably more than 75% or close to 80% of people were in favor for SPS. That means there is a hope that we engineers and also scientists should make an access to generalism and political side to persuade them, patiently enough, it is important and useful to start with.

This so we have to do but unfortunately researchers in the past were rather weak in these kinds of actions. For example at the national university if you make an access to politicians or statesmen even, generally you have been accused .There is not that our commissions, it is a political failure. But this is not a time to say such a nuisance, but we do need to make any possible access to statesmen, congressman or general public or generalism; this is my point. Which I probably can reinforce at all.