

space, science wouldn't have got very far. But, when the goal was a catchy phrase like "man in space" which could involve the man in the street in the program, it got his support. We must have a goal in pollution prevention for the man in the street to understand, that industry consumes its own wastes and that everything is reconsumed and recycled. This is maybe, a far-off goal, but it can form the focus for work on a long-term basis. It can be the aim to design at the outset with a view to recycling.

A total recycling of everything—I think this should be our goal. Of course, this needs entirely new legislative, business and marketing procedures, but because they have to be new doesn't mean that they are impossible and certainly does not mean that they are not compatible with our system of industry in the United States.

If American genius can mass produce automobiles and devise the elaborate system of distributing them, then American genius should be able to think up means of mass collection, mass disassembly and reuse. And, actually this type of thing can be done in the total context of a free enterprise operation.

It is very hard to initiate this reuse and recycling in our old cities. In our old overgrown, overloaded cities, it is hard to do anything brand new. So, that the second practical thing that I emphasize—and it was mentioned in the academy report very briefly—is that we need a massive place for experimentation of this kind, for totally new experiments.

A broad goal like this, with huge potential benefits, justifies large experimentation, and a commensurate risk of capital. It is for this reason that I feel it is essential that we approach the idea of a new experimental city where we can really test the new technology of reuse, the symbiosis of industry, new transportation systems and many other things which can all be components in the elimination of pollution at the source. I believe that the experimental city idea would also excite people and the experimental city would stimulate industry's participation.

There was some mention made of the ecology of pollution. We need an experiment in ecology and this is what the experimental city could give us. It would give us a model for systems analyses. It would give us a way, as Dr. Tukey said, of doing while we in a parallel fashion are investigating the scientific studies for the support of the problem.

Perhaps the experimental city sounds like a somewhat fantastic idea; but it isn't. With population increasing at 3 million a year, we are essentially unwittingly building 12 cities of a quarter of a million each year in the United States, and unwittingly is right. We are not using our wits. We are just letting the cities spawn. And, while I have no figures (studies must be made on the economics), it would seem to me that it must be cheaper in the long run to build new, clean cities with new technology for these 3 million new people each year. It must be cheaper than to just allow the old ones to grow and thus multiply the old problems.

An experimental city would also be the experimental place where you could attempt new institutional practices, legislative frameworks, and so forth which are absolutely essential if you are going to utilize the new research and technology toward this goal.