**DRAFT**

**Science and Technology Agenda in a Federal Philippines**

**Background, approaches and enabling specifics**

## *A. Background*

### *Science and Technology for Industry*

Any industrialization cannot happen without science and technology, and the support of scientists and engineers. We are good in training many technologists and scientists, providing scholarships and other educational tools and have a good crop of graduates in the medical professions, engineers scientists and agriculturists, but are not able to harness the potential and build the needed knowledge capital. Many of our scientists are lured abroad in spite of the restrictions in their scholarship grants, or sell their patents to foreign corporations. Until such a time that they can find sustainable and rewarding avenues to hone their science skills and build new knowledge in the Philippines, we still have much work to do. This is why many of them are OFWs who support the Duterte candidacy and seek genuine change.

### *Innovation Culture*

What recent success we have had with the saltwater lamp, the salamander tricycle and the Diwata 1 microsatellite is a good start but only indicates that we have a long way to go before we create an innovation culture. Innovation can only happen with enough scientists and technologists per capita to develop an "innovation ecosystem."

### *Asean Integration requires competitive technology*

Science and technology help us understand nature and the world, and enables us to lead full lives trough new and innovative means. It therefore requires that we as Filipinos, expand our science and technology base to enable us to compete in an integrated ASEAN.

## *B. Two major approaches*

1. **Stronger Research and Development in the regions, not just Manila**- expand research and development initiatives by providing more grant support for R and D through the DOSTs sectoral planning councils such as PCIERD, PCAARD and ASTI in cooperation with universities in the regions. The science initiative must be distributed to the regions especially those where food production needs to be improved, industry needs to grow and where innovation needs to be developed. This is critical in light of climate change and expensive electricity and the need to disperse industry and economic activities.

2. **Strategic projects in five areas:**

**Renewable energy**- we need new technologies to enable high electricity yields in limited space with less dependence on natural resources to enable us to meet our COP 21 commitments, while lowering the price of electricity.

**S and T for industry development**- we need stronger participation of our scientists and engineers if we want to revitalize our basic industries such as the steel industry.

**Faster and cheaper internet** – we have Asias slowest internet, yet our archipelago needs it t bridge gaps and build networks.

**increased food production**- given limited lands, technology is needed to expand yields while increasing quality of output and being less dependent on foreign inputs like fertilizers

**climate change adaptation.** We need cutting edge technology to enable our farmers to adapt to changing climates and the need to do away with technologies that destroy the capacity for good healthful yields.

**C. Enabling mechanisms and specifics**

1. More Research grants through the DOST and its sectoral planning councils and institutes
2. Strengthen the Balik Scientist Program and retention program for current young scientists- our young scientists must be engaged through actual research projects. Many of our scientists and engineers are OFWs who support our candidacy. We need their help to uplift our countrys technology and we hope they come back.
3. S and T cooperation within ASEAN- especially on the space program and climate change adaptation.
4. Cooperation between industry and the science community by involving them in the sectoral planning councils. DOSTs programs for SMEs (Such as SET-UP) needs to be replicated further.