# 有識者会議議論のまとめ(英語版)

LC推進会議 2015年10月15日 徳宿克夫(KEK)

#### 経緯

- 6月25日 第4回有識者会議 開催: 「これまでの議論のまとめ」の議論
- 8月6日 「これまでの議論のまとめ」をWeb掲載 日本語版・英語版 を同時掲載

http://www.mext.go.jp/b\_menu/shingi/chousa/shinkou/038/gaiyou/1360593.htm

#### 提言1:

ILC計画は巨額の投資が必要であり、一国のみで実現することはできず、国際的な経費分担が必要不可欠な計画である。巨額の投資に見合う科学的成果が得られるべきであるとの観点から、標準理論を超える新展開のために、ヒッグス粒子及びトップクォークの精密測定のみならず、新粒子の発見の可能性についても見通しを得るべき

Recommendation 1: The ILC project requires huge investment that is so huge that a single country cannot cover, thus it is indispensable to share the cost internationally. From the viewpoint that the huge investments in new science projects must be weighed based upon the scientific merit of the project, a clear vision on the discovery potential of new particles as well as that of precision measurements of the Higgs boson and the top quark has to be shown so as to bring about novel development that goes beyond the Standard Model of the particle physics.

### 提言1-補足第2パラグラフ

 As the ILC project requires huge investment, it is indispensable and essential prerequisite for the implementation to have a clear vision of participation and cost sharing by international partners including European countries and the United States while taking into account mid-term and long-term domestic economic and financial situations.

#### 提言2:

ILCの性能、得られる成果等については、2017年末までの計画として実施されているLHCでの実験結果に基づき見極めることが必要であることから、LHCの動向を注視し、分析・評価すべき。併せて、技術面での課題の解決やコスト面でのリスクの低減について、明確にすることが必要

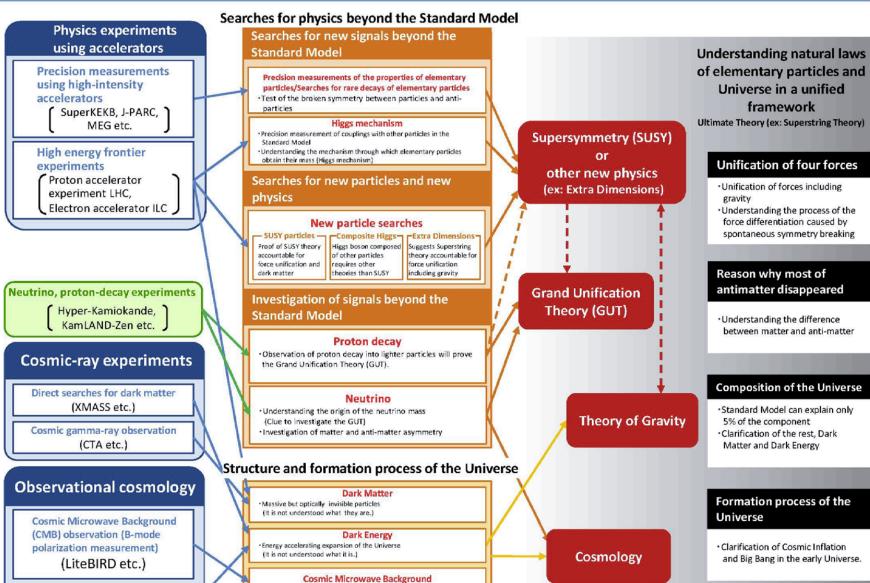
Recommendation 2: <u>Since the specifications</u> of the performance and the scientific achievements of the ILC <u>are considered to be designed based on the results of LHC experiments</u>, which are planned to be executed <u>through the end of 2017</u>, it is necessary to closely monitor, analyze and <u>examine the development of LHC experiments</u>. Furthermore, it is necessary to clarify how to solve technical issues and how to mitigate cost risk associated with the project.

#### 提言3:

提言1及び提言2に関する事項を含めて計画の全体像を明確に示しつつ、 国民及び科学コミュニティの理解を得ることが必要

Recommendation 3: While presenting the total project plan, including not only the plan for the accelerator and related facilities but also the plan for other infrastructure as well as efforts pointed out in Recommendations 1 & 2, it is important to have general understanding on the project by the public and science communities.

Large-scale galaxy survey (SuMIRe etc.)



· Primordial light carrying information of the Big Bang and Cosmic Inflation

Large-scale galaxy survey

## 4. Discussion on Interim Report by the Special Committee

Possible draft recommendations by the Special Committee:

- (1) Strategy and perspective of the new particle exploration should be clarified.
- (2) Energy scale of ILC should be examined based on the results of the current LHC experiment.
- (3) Understanding by the public and other science community than particle physics is very important in the decision making process.

参考: 嶋崎氏のFALCトークのスライド: (6月19日)

http://agenda.linearcollider.org/event/6727/other-view?view=standard

