ICFA International Committee

# Report from ICFA

1. ICFA Panels
2. Other Activities of ICFA
3. FALC
4. ILCSC Sub-WG

Atsuto Suzuki, Chair ICFA

International Linear Collider Workshop 2010

Beijing, China, 26 March 2010

ICFA International Committee

# ICFA Panels-1

- International Linear Collider Steering Committee (J Bagger)
  → guiding the ILC development
  sub-WG report (below)

- Beam Dynamics (chair: W Chou)
  → encouraging and promoting international collaboration on beam dynamics studies for present and future accelerators

2009 Linear Collider Accelerator School : Beijing, 69 applicants from 21 countries

2010 Linear Collider Accelerator School : 25 October to 5 November in Switzerland

Workshops in 2010 : **High Brightness Beams** (September, Switzerland),
**Future Light Sources** (March, SLAC),
**Electron Cloud** (October, Cornell)

# ICFA Panels-2

- Advanced and Novel Accelerators (M Uesaka)

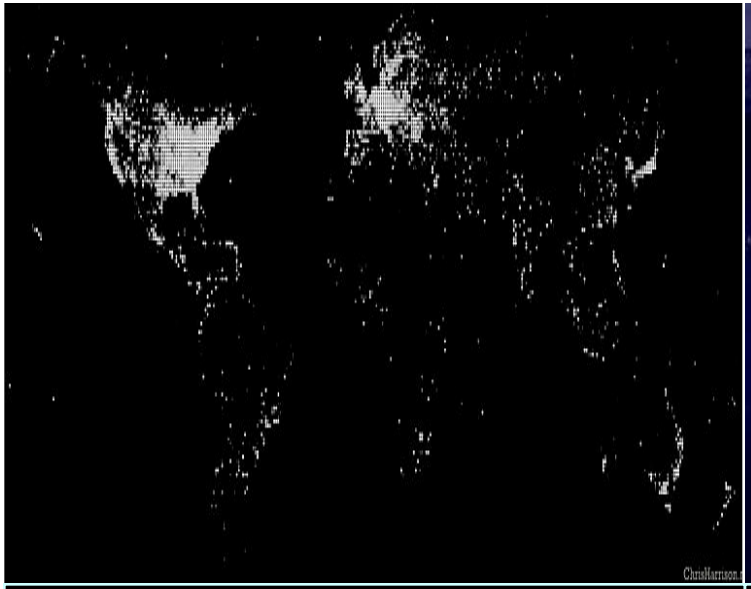
  → promoting and encouraging international collaboration/workshop/school on advanced and novel accelerators.

- Instrumentation Innovation and Development (A Cattai)

  major activity : Instrumentation school for younger researchers

- Interregional Connectivity (H Newman)

  → monitoring and reviewing interregional connectivity



World Internet Connection Density 2008
http://www.chrisharrison.net/projects/InternetMap/

The World At Night
http://www.bertc.com/subfour/truth/nightworld.htm

# ICFA Panels-3

ICFA endorses 2 new panels :

- Joint Task Force of ICUIL and ICFA Panels

  for exploring possible cooperation and common activities, related to the current active research on laser acceleration of particles

  (M Uesaka, T Tajima)


- Particle Physics Data Preservation and Long Term Analysis in HEP

  This decade a few major experimental programs at colliders complete.

  What is the fate of the collected data ?

  (C Diaconu)

# ICFA Panels-4

## International Study Group on HEP Data Preservation


- Collider Experiments
  - $e^+e^-$, ep, $p\bar{p}$
- Computing Centers
- Some funding agencies

- About 50 contact persons

**Coordination**
Chair: Cristinel Diaconu (DESY/CPPM)
**Working Groups Convenors:**
Physics Case — François Le Diberder (SLAC)
Preservation Models — David South (DESY) , Homer Neal (SLAC)
Technologies — Stephen Wolbers (FNAL), Yves Kemp (DESY)
Governance — Salvatore Mele (CERN)

**International Steering Committee**
DESY-IT: Volker Gülzow (DESY)
H1: Cristinel Diaconu (CPPM/DESY)
ZEUS: Tobias Haas (DESY)
FNAL/DoE: Amber Boehnlein (DoE)
FNAL-IT: Victoria White (FNAL)
D0: Dmitri Denisov (FNAL), Darien Wood (FNAL)
CDF: Jacobo Konigsberg (FNAL), Robert Roser (FNAL)
IHEP-IT: Gang Chen (IHEP)
BES III: Yifang Wang (IHEP)
KEK-IT: Takashi Sasaki (KEK)
Belle: Masanori Yamauchi (KEK), Tom Browder (Hawaii)
SLAC-IT: Richard Mount (SLAC)
BaBar: Francois Le Diberder (LAL/SLAC)
CERN-IT: Frederic Hemmer (CERN)
CERN/PARSE: Salvatore Mele (CERN)
CLEO: David Asner (Carleton)
STFC: John Gordon (RAL)

**International Advisory Committee**
Chairs: Jonathan Dorfan (SLAC) and Siegfried Bethke (MPI Munich)
Advisers: Gigi Rolandi (CERN), Michael Peskin (SLAC), Dominique Boutigny (IN2P3), Young-Kee Kim (FNAL), Hiroaki Aihara (IPMU/Tokyo)

ICFA International Committee

# Other Activities

- Particle Physics Situation --- Now and the Remainder of the Decade
  - In the past, ICFA has generally only been involved in global, not local, projects, but since particle physics is an international endeavour, ICFA should perhaps look at the complete picture, even though it has not done so in the past.
  - The consensus was the ICFA should produce a global roadmap.

- Revising the ICFA Guideline
  - Guideline #6 says that experimental groups should not be required to contribute to accelerator or experimental area running costs.
  - Projects are now becoming larger and more expensive, so costs to the accelerator host country are increasing.

  .....
  - The general feeling was to not change the existing model at this time. Discussion will continue at the next ICFA meeting.

# FALC

## European strategy discussions of CERN

- The Working Group has reflected on governance structures for future global projects and how Europe, through CERN, could take part in global accelerator projects in other regions.

## Definition of global project

- FALC grappled with the definition of a global project and how this might differ from an international project.
- The degree of internationalism, the nature of the governance, the size of the project, and the level of formalization of international commitments and agreements were all considered key attributes of global projects.
- A preparatory draft document on the definition of a global project is prepared for the next FALC meeting.

# FALC

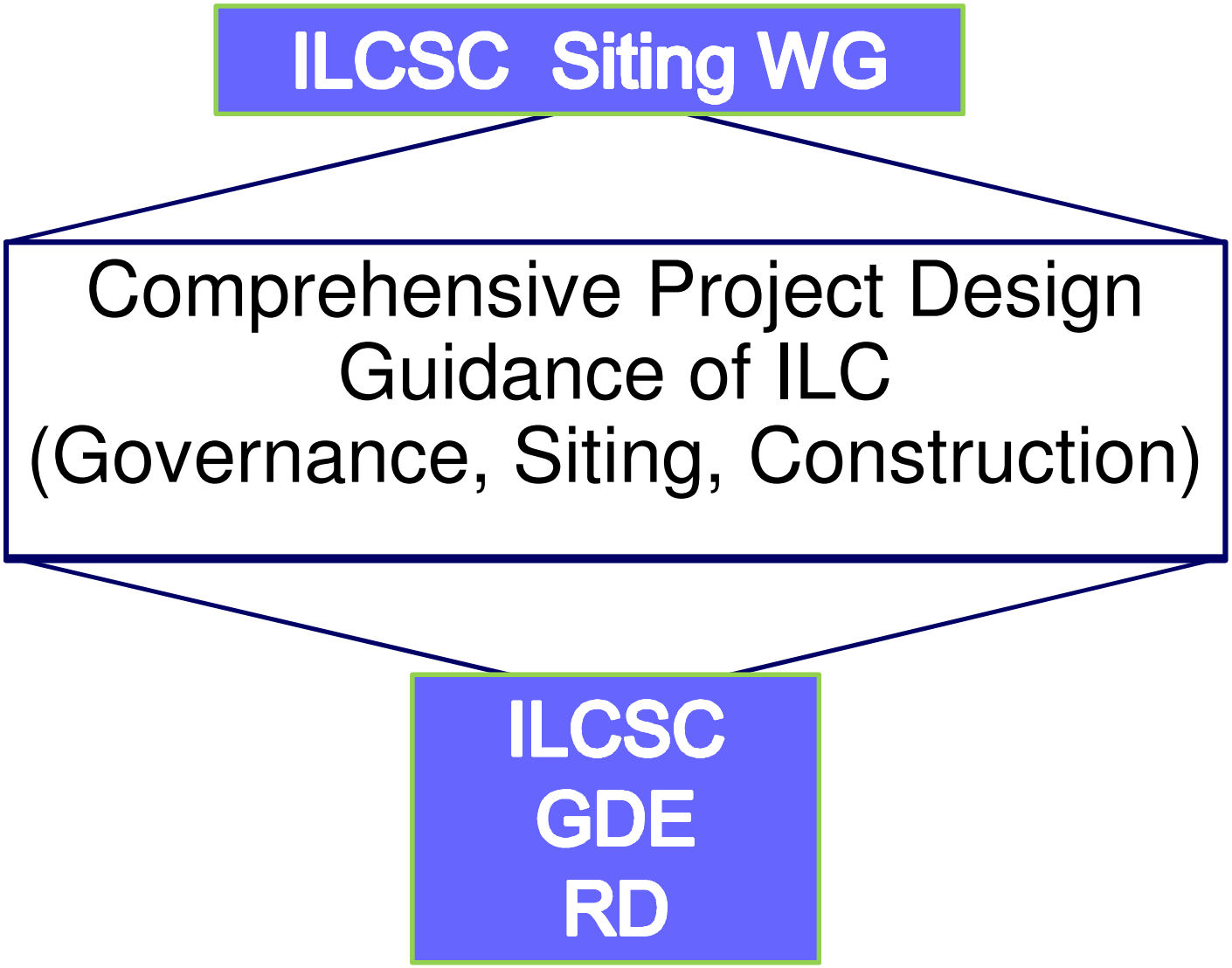
***FALC : Funding Agency for Linear Collider***

***Large Collider***

***Large Collaboration***

ICFA International Committee

# ILCSC sub-WG



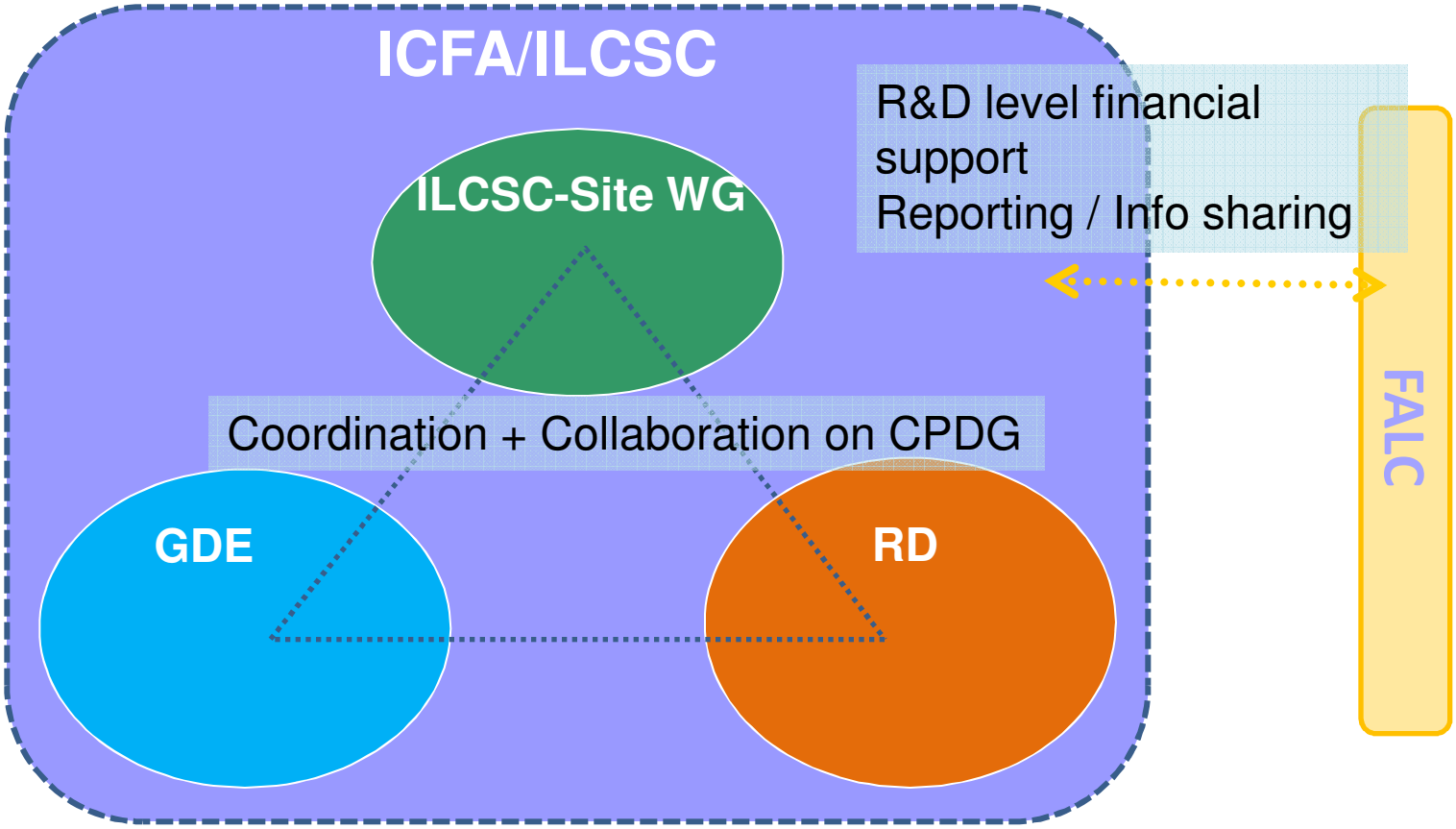
# Comprehensive Project Design Guidance (CPDG)-1

- **We are reaching the right time for re-examining Comprehensive Project Design Guidance of ILC**
  - **In history,**
    - **Early studies of LC governance issues were done in 2000's**
      - **by regional bodies, individually (Asia, Americas, Europe) ,**
      - **by OECD GSF Consultative Group on HEP**
  - **However, no internationally-organized body has yet to give a coherent update since then**
  - **It is urgent to update our prospects, preference and understanding on the comprehensive project design guidance of ILC**
  - **An interim report in 2010, with the final version by the end of 2012**

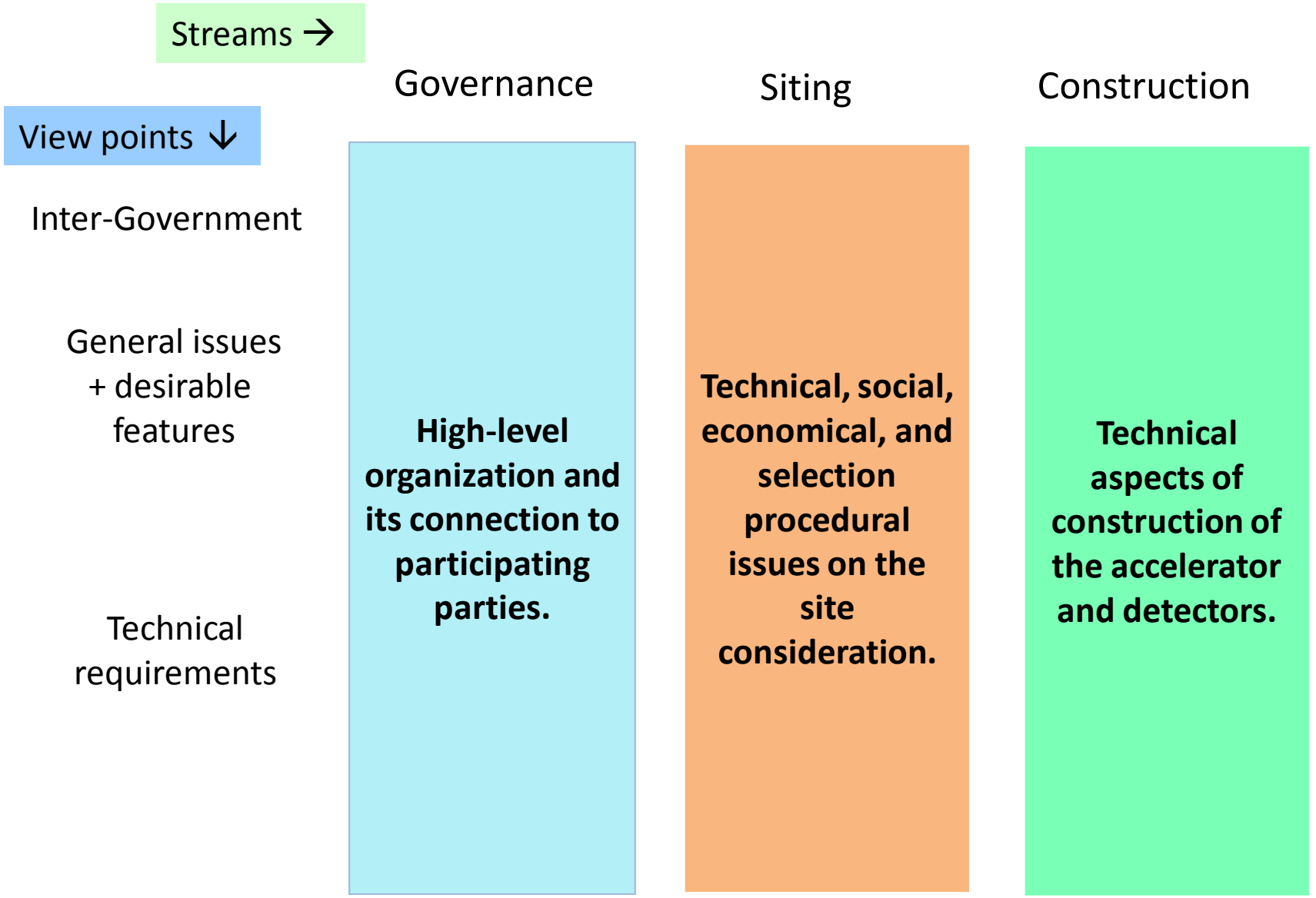
# Comprehensive Project Design Guidance (CPDG)-2

- **We do not substitute for the bodies to manage inter-governmental issues**
  - **We focus on what the scientific communities can best do.**
  - **We present our desire from scientific viewpoint, wherever applicable.**
  - **We inform the governments of the outcome of our study, but**
  - **We leave what have to be done by the governments to the governments.**

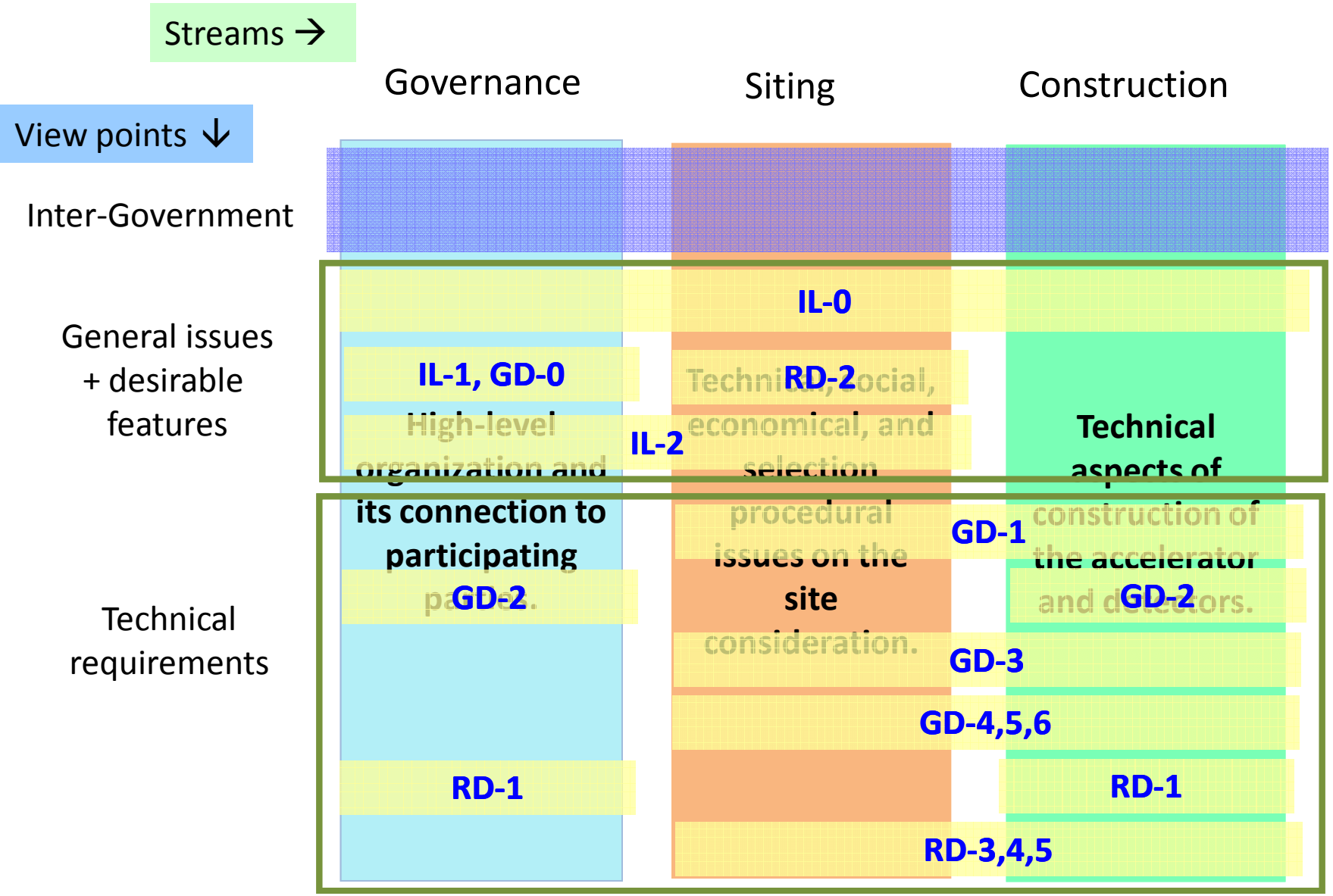
- **We mobilize all relevant scientific bodies adequately**
  - **Bodies to involve:**
    - **ILCSC/ICFA**
    - **GDE and Research Director (for Detectors)**
    - **And their work groups; Any other ad-hoc work groups**


ICFA/ILCSC
ILCSC-Site WG
Coordination + Collaboration on CPDG
GDE
RD
R&D level financial support
Reporting / Info sharing
FALC

# How we organize this work-1
## – Work Packages along Three Streams –



# How we organize this work-2
## – Work Packages along Three Streams –



# Brief Contents of Each Work Package

# IL-0: CPDG Principles

**This is an introduction to our ILC CPDG , where we make critical statements on the underlining principles (general philosophy) of the ILC laboratory and its management.**

1. Open to the world
2. Solid legal base
3. Long-term stability and short-term agility
4. Evolutionary steps to follow, when the ILC lab is being approved and formed.
5. Intellectual properties.
6. Health of participating and other HEP institutes

# IL-1, GD-0:Top-level management

**Top-level management structure**

**i.e. org. structure of the top-level governing body, and its relation to collaborating institutions and participating nations.**

1. Assessment of possible model examples (CERN-like, ITER-like, Euro-XFEL-like ….) and our recommendation.
2. Desired process for establishing the top-level management structure
3. Issues that require consensus by the research community before the formal inter-government-level process starts.
4. Thoughts on legal aspects
   - Rights on intellectual and material properties / Safety regulations / Import/export Taxes / Legal status of the organization, and the members of the institute, etc etc…

# IL-2:Siting – Site Selection Process

**Site Selection Process**

General analysis of the selection process, with statements on our preference from the scientists' stand-point.

1. **Studies of existing processes**
   - ITER, Olympics, World-cup, etc.
2. **Features of desirable site selection process for ILC**
3. **Studies of ILC site cases of on the basis of GD-3 and RD-2.**

# GD-1: Sharing models

**Sharing models of technical responsibilities in construction and operation of ILC.**

1. List of equipments to be shared (sharable contributions; in-kind contributions)
2. List of additional contributions expected from the host country / region.
3. Procurement and sharing of human resources (personnel from local / remote labs, seconded personnel, etc)
4. Analysis of possible 'models of sharing' from technical view points

# GD-2: Management Models on Accelerator and Facilities

**Organizational model for technical management of accelerator and facilities, under the top-level management. Conduct analysis of the requirements and possible solutions for –**

1. Pre-construction period (technical sharing / startup / preparation of production plants…)
2. Construction period (mass production, tunneling,, installation)
3. Commissioning period
4. Operational period

# GD-3:Siting - Technical

**Siting issues from the technical standpoint of accelerator construction and operation.**

1. **Specifications**
   - Geological / geographical / stabilities aspects
   - Transportation of equipment
   - Electricity, water and other resources
2. **Site studies to perform, during the pre-approval / pre-construction stages of ILC**
   - Items of investigation
3. **Environmental assessment and its process (could be Site dependent)**

# GD-4/5/6:Acc. Construction process - Technical

**Timeline analysis of the construction steps to follow for the accelerator and facilities -**

**G4: Design preparation**

- Design finalizations
- Manufacturing studies

**G5: Construction**

- Component fabrication
- Component installation
- Commissioning

**G6: CF/S schedule**

- Tunnel excavation
- Building of surface facilities

# RD-1: Management Model on Detector & Experiment

**Organizational model for technical management of detectors and experiments, under the top-level management. Conduct analysis of the requirements and possible solutions for –**

1. Pre-construction period (technical sharing / startup period)
2. Evaluation and approval of proposed experiments.
3. Construction period (mass production, tunneling..)
4. Commissioning period
5. Operational period

## RD-2: Siting - Living Environment

**Siting issues (desirable features for the ILC site) from the stand-point of living environments for the research staff**

- Access
- Residential environment
- Hiring situation for family members
- Communal facilities (hospital, International school, hotel, Convention halls, religious places, etc.)
- Climate / Weather

## RD-3/4/5:Detector Construction process -Technical

**Timeline analysis of the construction steps to follow for the detectors and experiments -**

**RD-3: Design preparation**

- Finalizing design
- Manufacturing study

**RD-4: Construction**

- Component fabrication
- Component installation
- Commissioning

**RD-5: CF/S schedule**

- Preparation of related surface facilities

# Current Status of IL-0,1,2 Efforts

# IL-0: CPDG Principles

Streams: G, S, C

View point : General issues

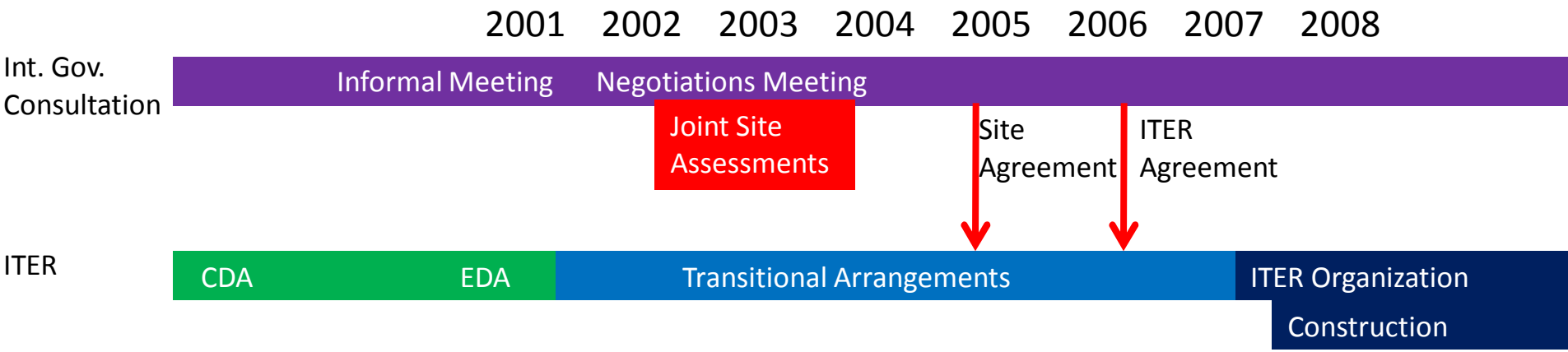
Drafted by: **Chairpersons of ICFA and ILCSC**
Finalized by: ILCSC/ICFA

**This is an introduction to our ILC CPDG Report, where we make critical statements on the underlining principles (general philosophy) of the ILC laboratory and its management.**

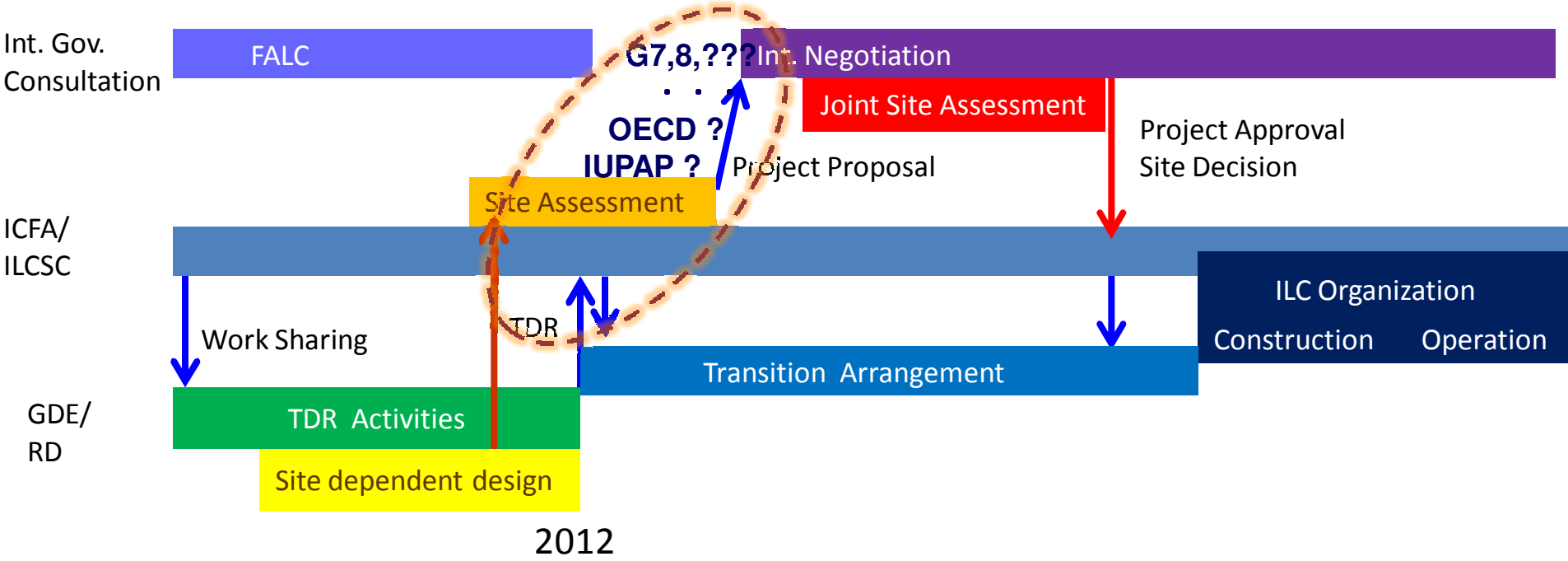
1. Solid legal base, accountability and openness to the world
2. Long-term stability and short-term agility
3. Health of rights of participating parties
4. Intellectual properties

**Evolutionary steps up to the inter – government approval on the ILC project**
**Evolutionary steps to follow, when the ILC lab is being approved and formed**

# ITER Timeline




# Possible ILC Timeline for IL-0



# IL-1, GD-0:Top-level management

Streams: G

View point : General issues

Drafted by: ILCSC, GDE
Draft submitted to: ICFA
Assessed by: ICFA (FALC, if possible)
Report finalized by: ICFA/ILCSC

**Top-level management structure**

**i.e. org. structure of the top-level governing body, and its relation to collaborating institutions and participating nations.**

1. Assessment of possible model examples (CERN-like, ITER-like, Euro-XFEL-like ….) and our recommendation.
2. Desired process for establishing the top-level management structure
3. Issues that require consensus by the research community before the formal inter-government-level process starts.
4. Thoughts on legal aspects
   - Rights on intellectual and material properties / Safety regulations / Import/export Taxes / Legal status of the organization, and the members of the institute, etc etc…

# Assessment of Possible Model Examples : CERN-like, ITER-like, Euro-XFEL-like and our ILC recommendation

1. Structure and Relations among Top Level Forums during Project Perception
2. Structure and Relations among Top Level Forums during Project Constructing and Operation
3. Management and Operational Organization
4. Resource Procurement
5. Legal Issues
6. Others

| | | LHC (CERN) | | | ITER | | | ILC | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Host issues | Guest issues | | Host issues | Guest issues | | Host issues | Guest issues |
| Structure and Relations among Top Level Forums during Project Inception | With respect to individual governments | (On CERN rather than on LHC) At an intergovernmental meeting of UNESCO in Paris in December 1951, the first resolution concerning the establishment of a European Council for Nuclear Research was adopted. Two months later, 11 countries signed an agreement establishing the provisional Council – the acronym CERN was born. | | | US-USSR Summit Meeting in 1985 was the starting point. | | | Op-1: Initiative of, for example, G8, to invite countries to sign up on an agreement so as to establish the provisional Council.<br>OP-2: Host country invites countries via their labs, or directly, to found an enterprise.<br>OP-3:Initiative of, for example, G8, to invite countries to sign up on an agreement so as to establish the provisional Council. | | |
| | With respect to (higher level) international organizations | (On CERN rather than on LHC) At the fifth UNESCO General Conference, held in Florence in June 1950, where the American Nobel laureate physicist, Isidor Rabi tabled a resolution authorizing UNESCO to "assist and encourage the formation of regional research laboratories in order to increase international scientific collaboration..." | | | Organized by IAEA. | | | Op-1: a UN organization such as UNESCO, IAEA... to acknowledge / authorize the formation of a new lab.<br>OP-2: Not directly connected to specific international organizations.<br>Op-3: a UN organization such as UNESCO, IAEA... to acknowledge / authorize the formation of a new lab. | | |
| Structure and Relations | With respect to individual governments | Government voices are reflected via CERN Council: The Council is composed of not more than two delegates (typically, government representative and scientist) from each Member State who may be accompanied at meetings of the Council by advisers. | | | via DAs | | | Op-1: Via ILC Council: The Council may be composed of delegates from each Member State who can be accompanied at meetings of the Council by advisers.<br>OP-2: Each government becomes a shareholder of the Limited liability company. Their labs may assist the gov representives in the share holder's meeting.<br>Op-3: Via the participating labs. | | |

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| relations among Top Level Forums during Project Construction and Operation | Top-level governing body | CERN Council | | | ITER Council | | | OP-1: Council of the host lab. Council will be composed of delegates from each member state.<br>OP-2: ILC-Enterprise Council composed of delegates from the shareholders.<br>OP-3: ILC-Lab. Council composed of delegates from the participating labs. | | |
| | With respect to (higher level) international organizations | In cooperation with UNESCO. Can extend coorperation with other international orgs with council approval with > 2/3 votes. | | | IAEA | | | Op-1: a UN organization such as UNESCO, IAEA, etc.<br>OP-2: Not directly connected to specific international organizations.<br>OP-3: a UN organization such as UNESCO, IAEA, etc. | | |
| | | | | | | | | | | |
| | Legal basis | "ARTICLE IX : Legal Status" states as follows -<br>The Organization shall have legal personality in the metropolitan territories of all Member States.<br>Set up as practically a permanent organization. | | | Legal basis is the inter-governmental agreement on the founding of ITER organization and related documents.<br>Project for 35 yrs (10 yrs for construction, 20 yrs for operation and 5 yrs for decommissioning and decontamination).<br>BA for 10 yrs. | | | Op-1:The new lab. shall have juridical personality in all membership countries based on an international agreement.<br>OP-2: The new enterprise shall have juridical personality in the host country.<br>Op-3: Same as Op-1. | | |
| | Organizational structure | The CERN Council is the highest authority of the Organization and has responsibility for all-important decisions. It controls CERN's activities in scientific, technical and administrative matters. The Council approves programmes of activity, adopts the budgets and reviews expenditure.<br>The Council is assisted by the Scientific Policy Committee and the Finance Committee.<br>The Director-General, appointed by the Council, manages the CERN Laboratory. He is assisted by a Directorate and runs the Laboratory through a structure of Departments. | | | see http://www.iter.org/org/Pages/default | | | Op-1: The Council is the highest authority of the Organization and has responsibility for all important decisions. The Director-General, appointed by the Council, manages the lab., assisted by a Directorate.<br>OP-2: Same as Op.-1, except that the Council is the assembly of the shareholders.<br>OP-3: Same as Op.-1, except that the Council is the assembly of the participating labs. | | |

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| Management and Opertional Organization | Admission of new participating parties | The Organization shall provide for collaboration among European States in nuclear research.<br>States which are parties to the Agreement of the fifteenth of February, 1952, referred to in the Preamble hereto, or which have contributed in money or in kind to the Council thereby established and actually participated in its work, shall have the right to become members of the Orgnanization by becoming parties to this Convention in accordance with the provisions of Article | | | Possible upon unanimous approval by the c | | | Op-1: Possible upon approval by the council.<br>OP-2: Same as Op-1.<br>OP-3: Same as Op-1. | | |
| | Long-Term Stability | Maintained through members' obligations to finance continued, long-term contributions.<br>Dissolution:<br>The Organization shall be dissolved if at any time there are less than five Member States. It may be dissolved at any time by agreement between the Member States. | | | The seven participants are obliged to stay for 10 years. Withdrawal, after 10 years, is possible if certain decommissioning cost is borne. | | | Op-1: Maintained through members' obligations imposed by an international agreement to finance the project. It may be dissolved at any time by agreement between the Member States.<br>OP-2: Maintained through contracts. Withdrawal is possible if certain decommissioning cost is borne.<br>OP-3: Same as Op-1. | | |
| | Flexibility with respect to organizational changes and technical challenges | Converntions can be revised by > 2/3 voting of the Council. | | | (?) | | | Matter of leadership:<br>Op-1: flexible by virtue of centralism.<br>OP-2: less flexible because of decentraliized system based on in-kind contributions.<br>OP-3: Same as Op-2. | | |
| | Transparencies of decision making processes | Council minutes are all puiblic. | | | ITER council has bodies for operation review and financial auditing. | | | Op-1: Council minutes are all public.<br>OP-2: Same as Op-1.<br>OP-3: Same as Op-1. | | |
| | Fairness to participating parties | Each Member State has a single vote and most decisions require a simple majority | | | Voting, for planning of experiments, is weighted in accordance with the cost sharing during operation. | | | Participating parties in the facility construction: Voting weighted by contributions. | | |

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| | Relation with the users community | Public call for proposals followed by committee screening; then execution on the basis of MoU. | | | | Do not apply | | | | Public call for proposals followed by committee screening and final approval by the Council; Experiments are exeucted on the basis of MoU. Once approved, the experimental collaborations report to the lab but are given certain autonomy. The collaborations are responsible for certain fraction of the facility operation cost. | | | |
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| | | Construction | Operation | | | Construction | Operation | | | Construction | Operation | | |
| Resource Procurement | Flow of funds and method of procurement of materials by the central lab. | Each Member State shall contribute both to the capital expenditure and to the current operating expenses of the Organization.<br><br>The Council may determine a percentage as the maximum which any Member State may be required to pay of the total amount of contributions assessed by the | Same pratice as the entry on the left concerning the facility.<br><br>Common fund for individual experiments is also maintained on the basis of specific MoUs. | | | Sharing of support during construction as per agreement. | ?? | | | OP-1: mostly common fund including (HW materials).<br>OP-2: Combination of common fund (personel, management, installation), in-kind contributions (HW materials), and host support (CF/S).<br>OP-3: Same as Op-2. | Through common fund from both participating parties in facility construction and experimental collaborations. | | |
| | In-kind contributions from participants | In-kind contributions in case of experiments. | Essentially none. | | | Procurement is done by DAs of individual participating parties as in-kind contributions, in accordance with PA (procurement agreement) defining the specifications of individual components and schedule. | ? | | | OP-1: In-kind contributions in case of experiments.<br>OP-2: in-kind contributions (HW materials).<br>OP-3: Same as Op-2. | In-kind contributions at this stage are unlikely to be a dominant element at this stage (need to check). | | |

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| | Human resources | Personnel from member countries: France (35%), UK (9.8%), Italy (9.5%), Germany (8.9%), Switzerland (7.8%), Spain (4.7%) and the rest (1% each). | | | | Seven participants supply the personnel in accordance with procurement | | | | Op-1: from member states.<br>OP-2: from shareholders.<br>OP-3: from participating labs. | Same as in the construction phase. | | |
| | (Outsourcing / On-site Staff) | 2663 Staff members (with 1960 permanent) | | | | | | | | | need studies | | |
| | Management of procurement / integration | CERN to do centralized management. | | | | High-level integration to do by the ITER organization (IO). Same for the project management. Technical integration is done by unified teams of IO and Das. | | | | Op-1: ILC Lab. to do centralized management.<br>OP-2: Company to do centralized management.<br>OP-3: Same as Op.1. | | | |
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| | Materials Rights | | | | | | | | | | | | |
| | Safety control and approvals | | | | | | | | | | | | |
| | Import / Export Taxes | | | | | | | | | | | | |
| | Entrance visas for personnel | Member States shall facilitate, for the purposes of the activities of the Organization, the exchange of persons and of relevant scientific and technical information, provided that nothing in this paragraph shall: (a) affect the application to any person of the laws and regulations of Member States relating to entry into, residence in, or departure from, their territories; or (b) require any Member State to communicate, or to permit the communication of, any information in its possession in so far as it considers that | | | | | | | | | | | | |

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| Legal Issues | Legal status of staff | | | | | | | | | |
| | Intellectual properties | The CERNConvention places upon the Organization the obligation to publish or otherwise make available the results of its activities. No publication, communication or use of any piece of knowledge which is acquired from CERN in relation to a CERN contract: and which is patentable or may be considered intellectual property shall therefore be made without prior agreement in writing between the parties. CERN shall not withhold its agreement unreasonably, and shall act withdue diligence in notifying its decision. | | | Background Intellectual Properties (BIP = IP acquired / produced before ITER agreement or outside) - Members of ITER Org (IO) incorporating BIP grant a non-exclusive, royalty free license to other members of Agreement. Detailed provisions exist for cases with non-confidential and confidential information, and also for commercial fusion use.<br><br>Generated Intellectual Properties (GIP = IP acquired / produced while executing ITER agrreement) - Member owners of GIP grant a non-exclusive, royalty-free licence | | | | | |
| | | | | | | | | | | |
| | Information sharing and publications | CERN shall organize dissemination of information, and the provision of advanced training for research workers, which continue to be reflected in the current programmes for technology transfer and education and training at many levels. | | | | | | | | |
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| | Initial investment | any Member State may be required to pay of the total amount of contributions assessed by the Council to meet the annual cost of that programme（In 2001, 940CHF; Germany：21.33%, UK: 16.76%, France: 15.75% , Italy: 12.48%, Spain: 6.94%, Netherlands: 4.62%, Switzerland: 3.50%, Belgium: 2.69%; The Council may establish working capital funds. | | | 3020.7kIUA（1000US$=1IUA) to share by seven parties.<br>EU:45.5%, 9.1% each by Japan, USA, Korea, China, Russia and India | | | | | |
| | | | | | | | | | | |
| | Support by the host in relation with the social infrastructure | Taking advantage of Geneve's convenience. | | | ・Land area for site is provided for free.<br>・Access roads for transporting ITER equipment have been refurbished.<br>・Educational facilities up to high-schools have been set up for family members of ITER staff. | | | | | |
| | | | | | | | | | | |
| | Relation with other organization with attention to maintaining their health | The Convention also states that CERN shall organize and sponsor international co-operation in research, promoting contacts between scientists and interchange with other laboratories and institutes.<br>How about the relation with ICFA? | | | Relation with international societies of fusion research ?? Need to check. | | | | | |

# IL-2:Siting – Site Selection Process

Streams: G,S

View point : General

Oversight body: ICFA/ILCSC
Drafted by: ILCSC-Site
Draft submitted to: ILCSC
Assessed by: ICFA/ILCSC
Report finalized by: ILCSC
Authorized by: ICFA

**Site Selection Process**

General analysis of the selection process, with statements on our preference from the scientists' stand-point.

1. **Studies of existing processes**
   - ITER, Olympics, World-cup, etc.
2. **Features of desirable site selection process for ILC**
3. **Studies of ILC site cases on the basis of GD-3 and RD-2.**

# Principal Logic to Follow, throughout the Site Studies and Site Selection Process

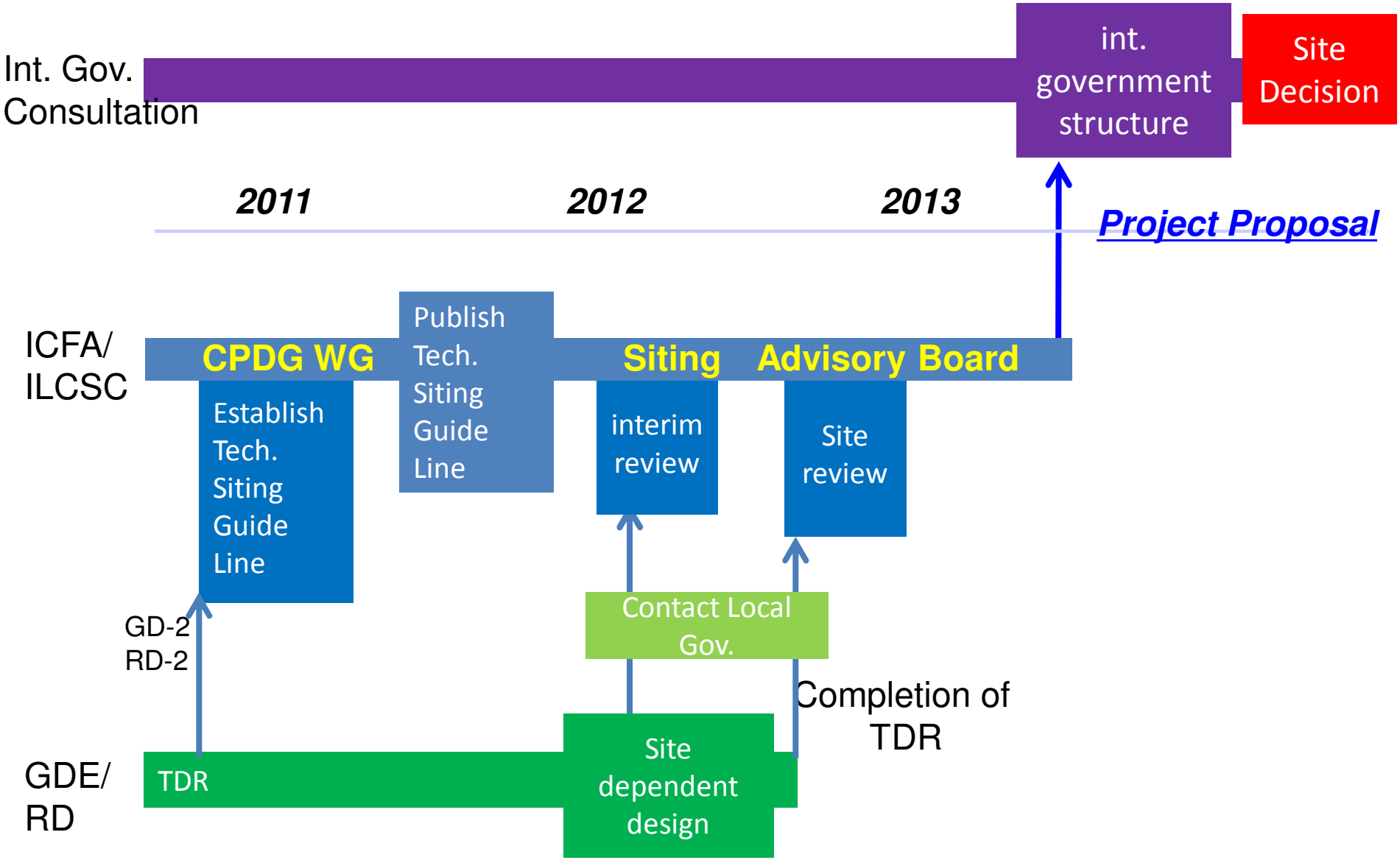
1. All site candidates to consider should have completed a level of studies similar to those conducted during the time of TDR. They do not necessarily have to be explicitly cited in TDR, however.

2. Technical criteria should be established through consultation within the scientific community, and be practically frozen prior to the launch of inter-governmental site selection processes.

3. Technical judgment (i.e. non-political judgment) of adequacies of individual site proposals should be conducted by experts of accelerator construction, and be dictated by “clearance of critical criteria” rather than by “comparison of total scores”.

4. **Cost differentials in CF/S and material transportation due to varying circumstances of individual sites should be borne by the host country / region. Such costs should be counted outside the scope of the total “common project” cost to share together by the hosting and non-hosting participating parties.**

# Site Selection Process - Timeline



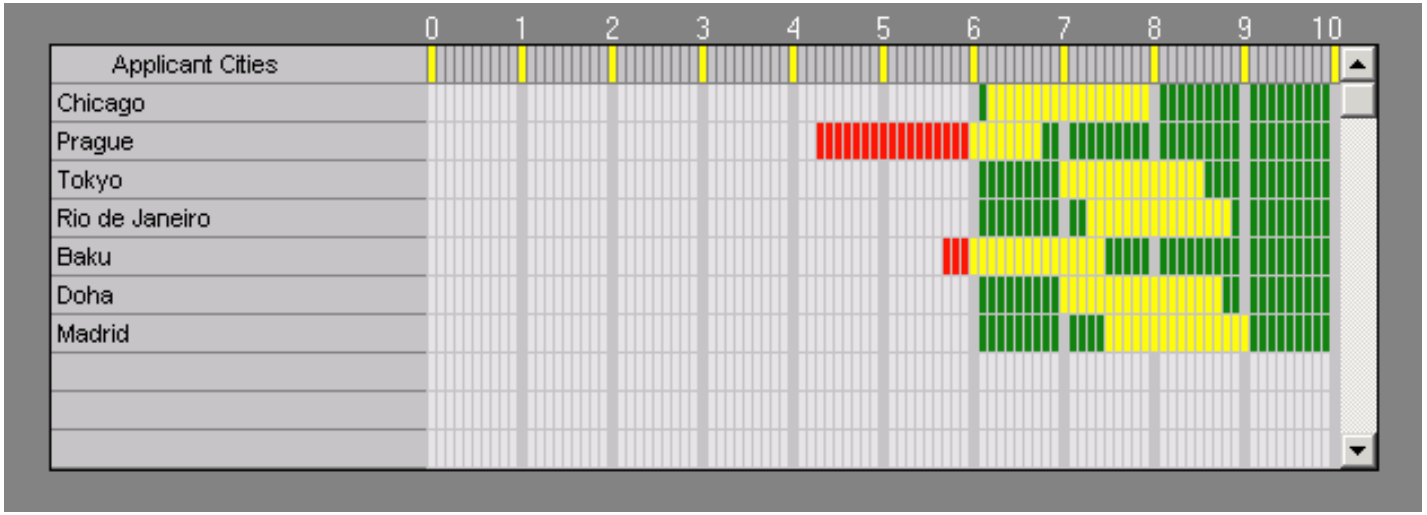
# Site Selection Case Studies

| | Olympic | ITER | ILC - Possibility |
|---|---|---|---|
| Stream | Staged approach: "**Application phase**" for pre-selection and "**Candidate phase**" for hearing, down-selection and voting. | Nation-level down-selection, followed by ITER Negotiation's meeting. | Possibly a staged approach: **"Phase 1" for scientific / technical validation**, followed by **"Phase 2" for government-level negotiations.** |
| Criteria for evaluation prior to final selection | Detailed questionnaire set and evaluation methodology by IOC. | http://www.naka.jaea.go.jp/ITER/official-J/pdfs/sitereq.pdf | Technical criteria can be established under ICFA/ILCSC. |

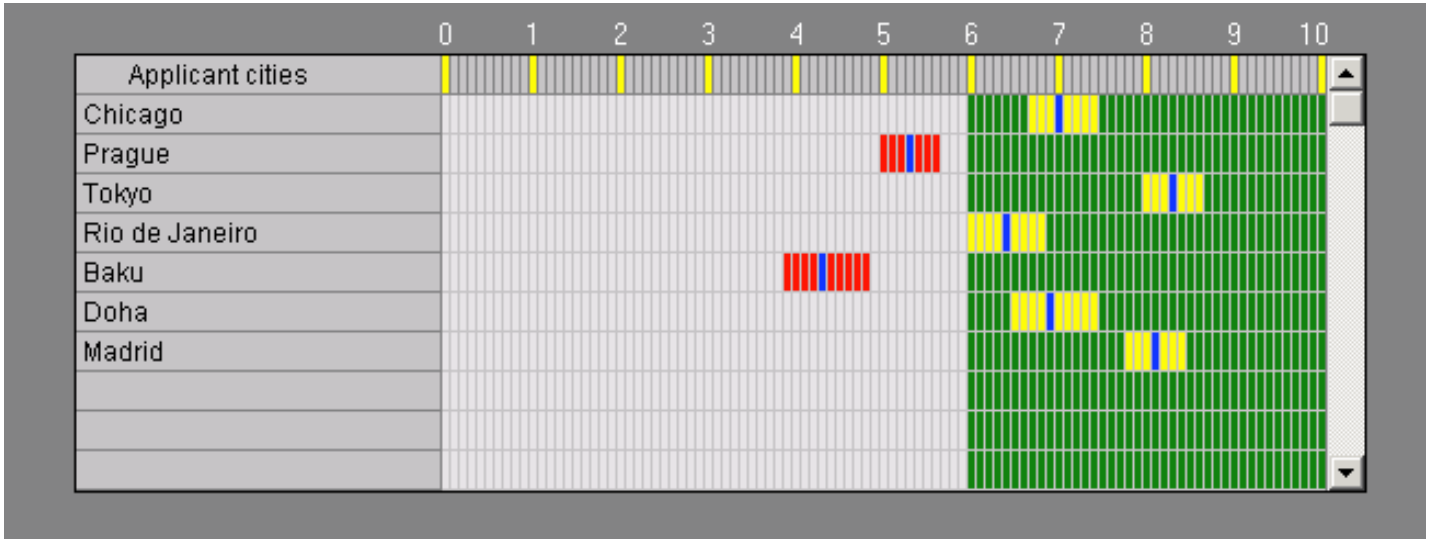
Separation of "technical validation" and "final political selection" is important.

# Site Selection Case Study : Olympic –3, Score Examples

1 - Government support, legal issues and public opinion (weighting = 2)




Final scores



# *Conclusions for ILCSC Sub-WG*

1. **We propose that we prepare our CPDG for ILC with a goal of publishing it in synchronization with the TDRs of ILC Accelerator / Detector.**

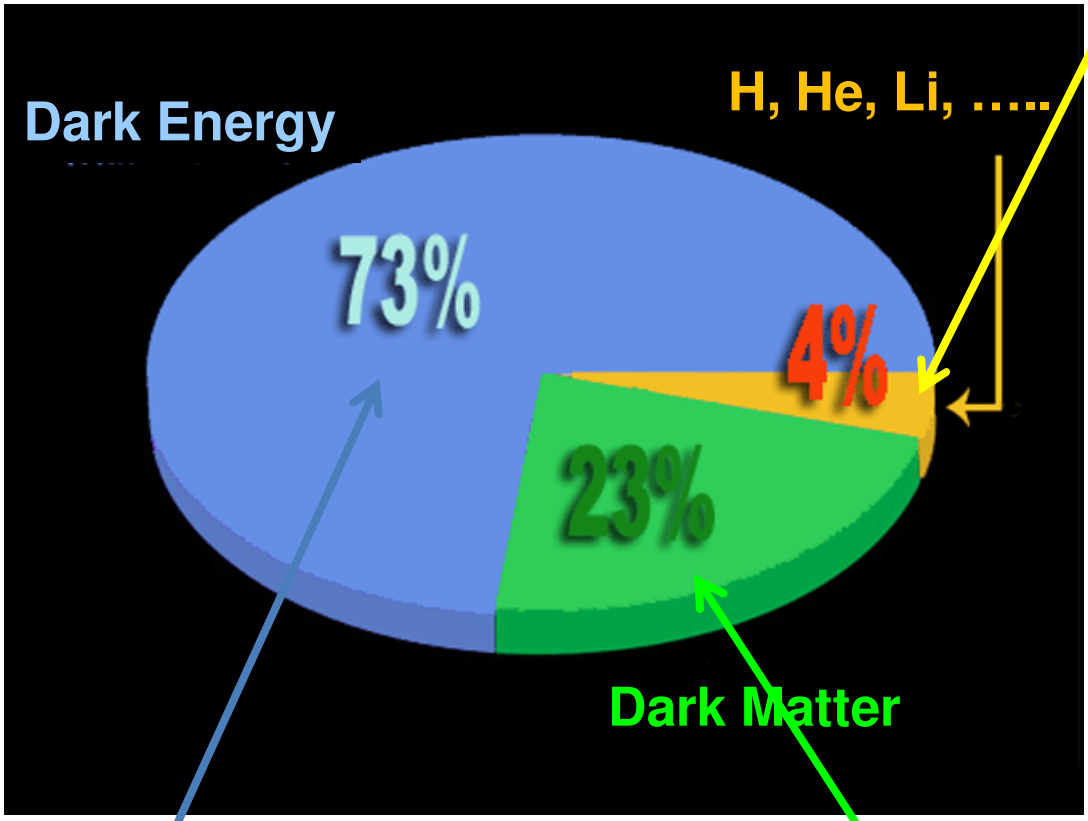
2. **We have provided you with our preliminary thoughts so far. We would like to invite your reactions and opinions so as to propel ourselves together.**

3. **We believe that it is important for us to continue transmitting the message that we the physicists will continue leading the scientific and technical efforts toward realizing the ILC.**

4. **We believe that in so doing it is important for us to cleanly separate the scientific / technical discussion and (inter-) national policy- oriented discussions.**

ILSCS Sub-WG member:
P Oddone (Fermi)
A Wagner → J Minch (DESY)
A S (KEK)

4 %




**Dark Side Soldiers**
**96 %**