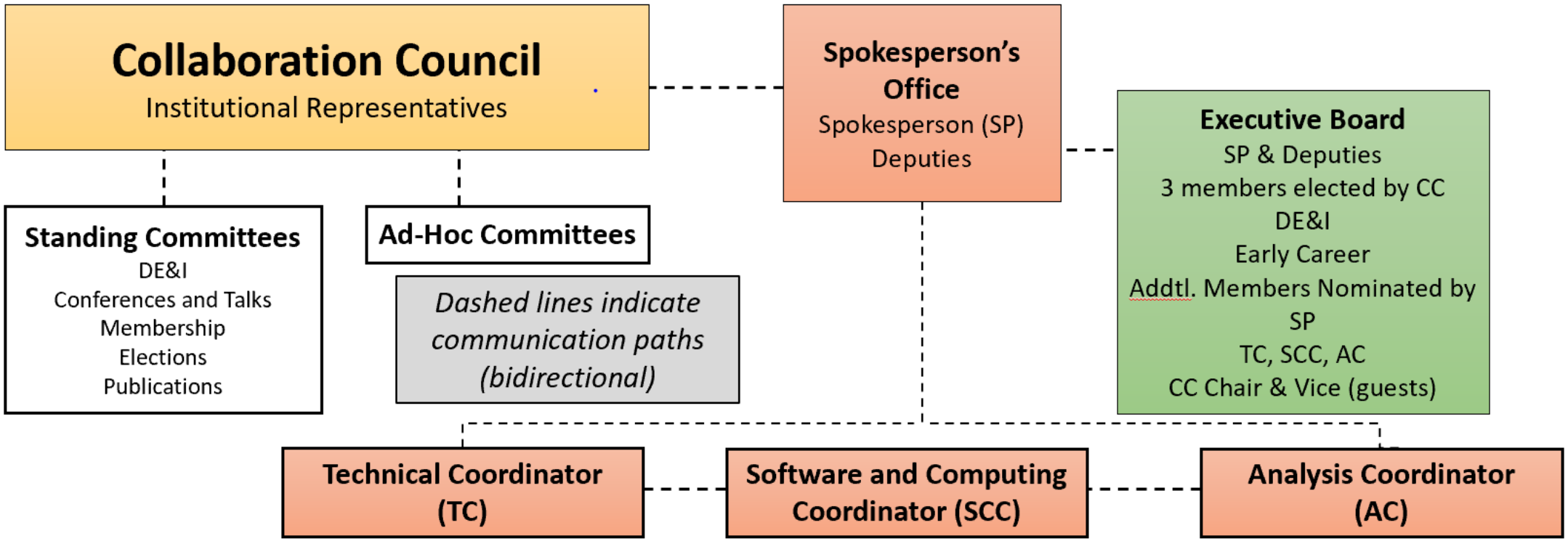
Detector Subsystem Collaboration Formation Status

John Lajoie and Silvia Dalla Torre

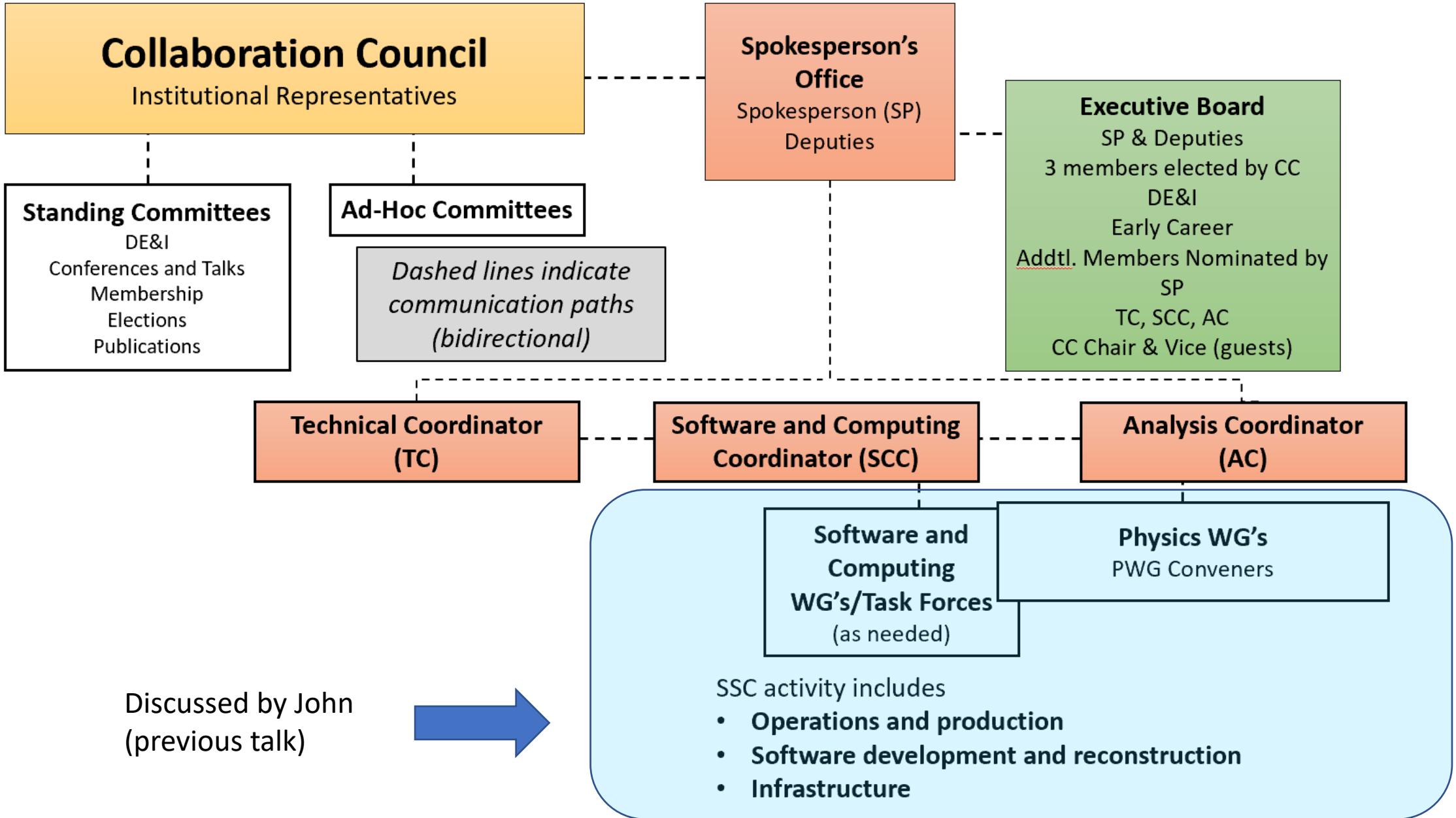
ePIC General Meeting, April 14, 2023

REMINDER

Introducing the Scientific Coordinators

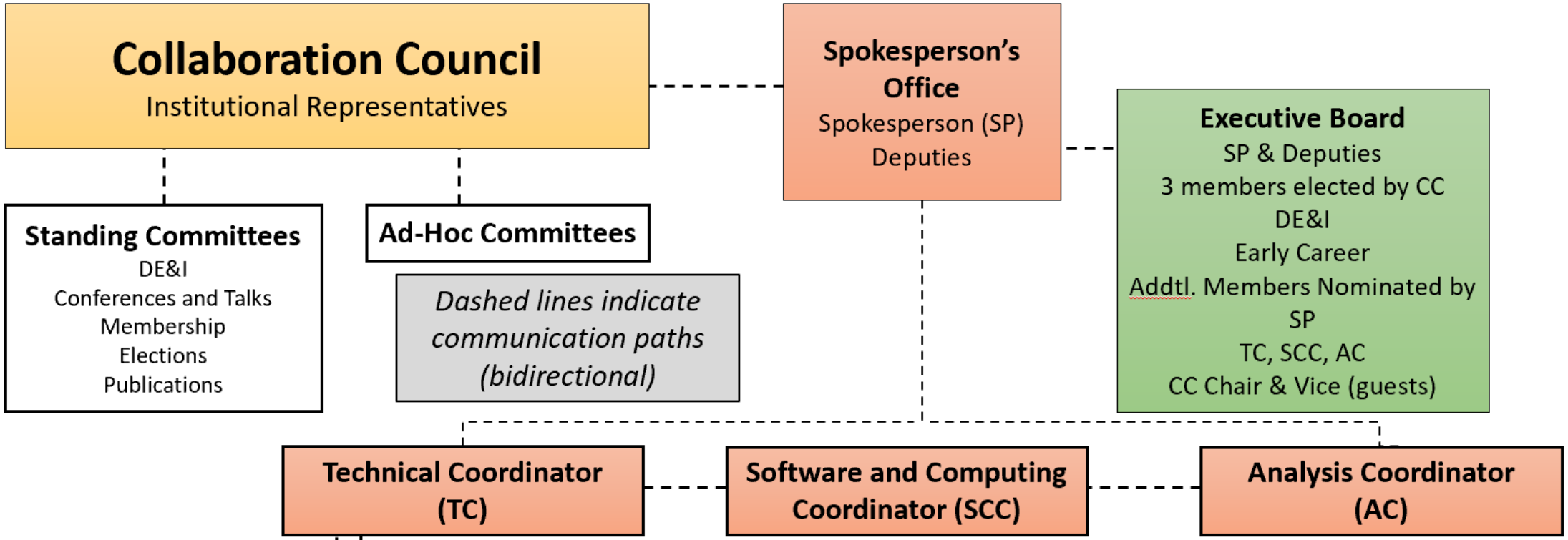


Software and Computing addressed with WGs and TFs



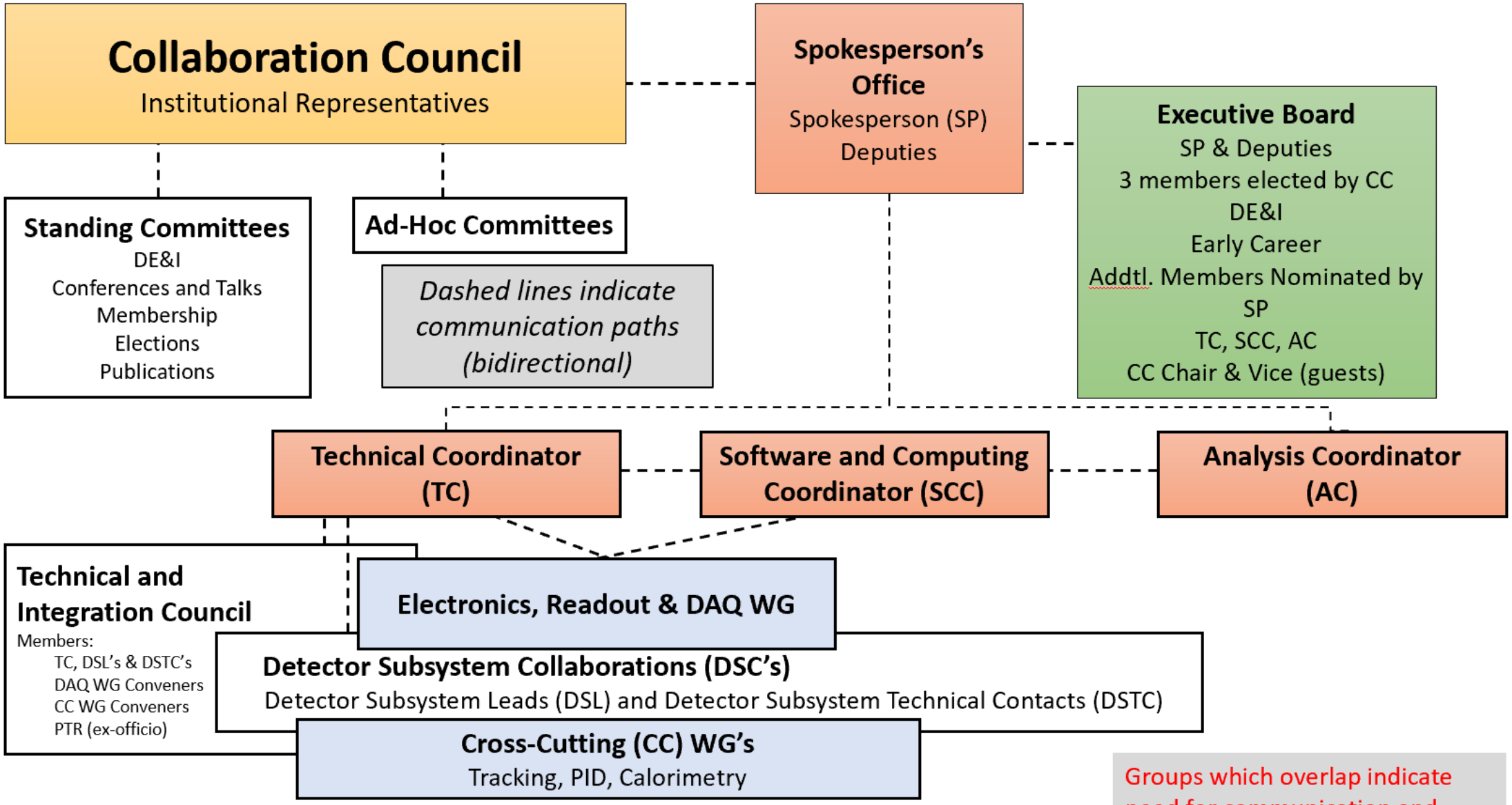
Discussed by John (previous talk)

Technical and Integration Council and Detector Subsystem Collaborations



Discussed in this talk

The cross-cutting effort



Groups which overlap indicate need for communication and horizontal integration.

WHY DSCs

- Functional to:
  - Finalize the detector sub-systems for the **TDR** (CD2&3)
  - **Prepare the construction period**
    - *Please, note that the present 2-y term coincides with period of preparation of the TDR !*
  - All large-size collaborations have similar structures
- Groups involved in the Detector Sub-Systems:
  - Make their **responsibility explicit**
  - Support their engagement and enthusiasm
  - **Clarify the communication cha**in in matter of Detector Sub-Systems
- Collaboration community:
  - **Support the aggregation** of different groups within the same Detector Sub-System
  - Offer an **opportunity of enlargement of the collaboration** also via the direct efforts of the groups in a Detector Sub-System to encourage partners, who are presently not ePIC members
- Financial Aspects
  - The **explicit links of groups in a Detector Sub-System** to their Detector Sub-System realization supports **actions** (by PM, ePIC management and Detector Sub-Systems members) **for in-kind contributions**
- Project progress:
  - Establish **direct links between the Detector Sub-Systems and the EIC Project CAMs**
  - **DSL and Task responsibles can integrated in the Project at level 4 and 5**

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DSCs are the basis of ePIC structure in the detector area in the coming phase

WHY DSCs & CROSS-CUTTING WGs

- Electronics, Read-out and DAQ WG
  - Crossing all detector subsystems
  - Crossing both subsystems and software area

  → No doubt about the cross-cutting nature of this effort

- Detector cross-cutting WGs (Tracking, calorimetry, PID)
  - **Request by the detector community** to preserve a forum for
    - Reciprocal information;
    - Discussion about common technical aspects;
    - Identify needs of common efforts to avoid duplication.
  - Cross-cutting WGs are in no way board with decision power:
    - they do not sit between the DSCs and the TIC !
  - Light meeting load expected.

- A specific case: the Tracking cross-cutting WG
  - Presently, ePIC does not have yet an optimized tracking configuration
  - Therefore, presently, the new WG has to act as a long-term task-force in view of this goal;
  - The single DSCs cannot perform the global optimization independently

STATUS

DSCs

- Information being collected in a share google sheet
  - When there is the need to open the share google sheet to more editors, please, let me know
- First dead-line for the collection of the initial information: April 13
- Present DSC layout has to be regarded as temporary:
  - Several DSCs are still not completed and more members will join the subsystem collaborations.
  - The subsystem grouping has to be scrutinized within TIC

Updated today, dead-line expired

DSCs

Detector Subsystem Collaboration Name	Detector Subsystem Leader (DSL)	Detector Subsystem Technical Contact (DSTC)	Collaborating Institutions
dRICH	Marco Contalbrigo		U Bari and INFN Bari (Italy) U Bologna and INFN Bologna (Italy) U Calabria and iNFN Cosenza (Italy) U Catania and INFN Catania (Italy) Duke University, Durham NC (USA) U Ferrara and INFN Ferrara (Italy) U Genova and INFN Genova (Italy) INFN Laboratori Nazionali di Frascati (Italy) INFN Laboratori Nazionali del Sud (Italy) NISER, Bhubaneswar (India) U Salerno and INFN Salerno (Italy) U Tor Vergata and INFN Roma 2 (Italy) U Torino, U Piemonte Orientale, Politecnico Torino and INFN Torino (Italy) U Trieste and INFN Trieste (Italy)
DIRC	no information provided		
backward RICH (TBD)	waiting for the reccomendation		
FFWD	Alex Jentsch or Michael Murray (need to select one)	Zvi Citron (B0 Spectrometer) Alex Jentsch (Roman Pots and OMD) Yuji Goto or Yuji Yamazaki (ZDC)	
FBKWD - Pair Spectrometer	Nick Zachariou	Dhevan Gangadharan	Brookhaven National Laboratory University of Houston (USA) University of York (UK) University of York (UK) AGH University of Science and Technology (Poland) Massachusetts Institute of Technology (USA) University of York (UK) Czech Technical University University of York (UK) University of Kansas (USA)
FBKWD - High Rate Calorimetry	Krzysztof Piotrzkowski	Krzysztof Piotrzkowski	
FBKWD - High Rate Tracker	Jaroslav Adam	Simon Gardner	
Si Trackers	no information provided		
Gaseous Trackers	no information provided		
Backward ECal	Tanja Horn	Carlos Munoz	AANL Abilene Christian University Catholic University of America Charles University - Prague College of William and Mary Florida International U. UCLab - Orsay James Madison U. Lehigh U. MIT Ohio U. University of Kentucky
Backward HCal	Leszek Kosarzewski		Czech Technical University in Prague
Barrel ECal (TBD)	waiting for the reccomendation		
Barrel HCal	John Lajoie		
Forward ECal	Oleg Tsai and Huan Z. Huang	Oleg Tsai	Brookhaven National Lab Fudan University Indiana University Tsinghua University Shandong University South China Normal University University of California Los Angeles University of California Riverside
Forward HCal	Friederike Bock		Oak Ridge National Laboratory Yale University Georgia State University University of California Riverside Valparaiso University Fermi National Laboratory University of Tennesee Iowa State University Brookhaven National Laboratory
Forward HCal Insert	no information provided		
Barrel AC-LGADs	no information provided		
Forward AC-LGADs	no information provided		

First TIC meeting

- Exceptionally on Friday: April 28 at 10.30am ET
- Standard TIC time slot: the one previously used by GD/I: Monday at 9.00am ET
- Attendance
  - TC
  - DSL, DSTC
  - Electronics, R-O and DAQ WG conveners
  - CC WG conveners
  - PTR