

DRD-on-Calorimetry Organisation

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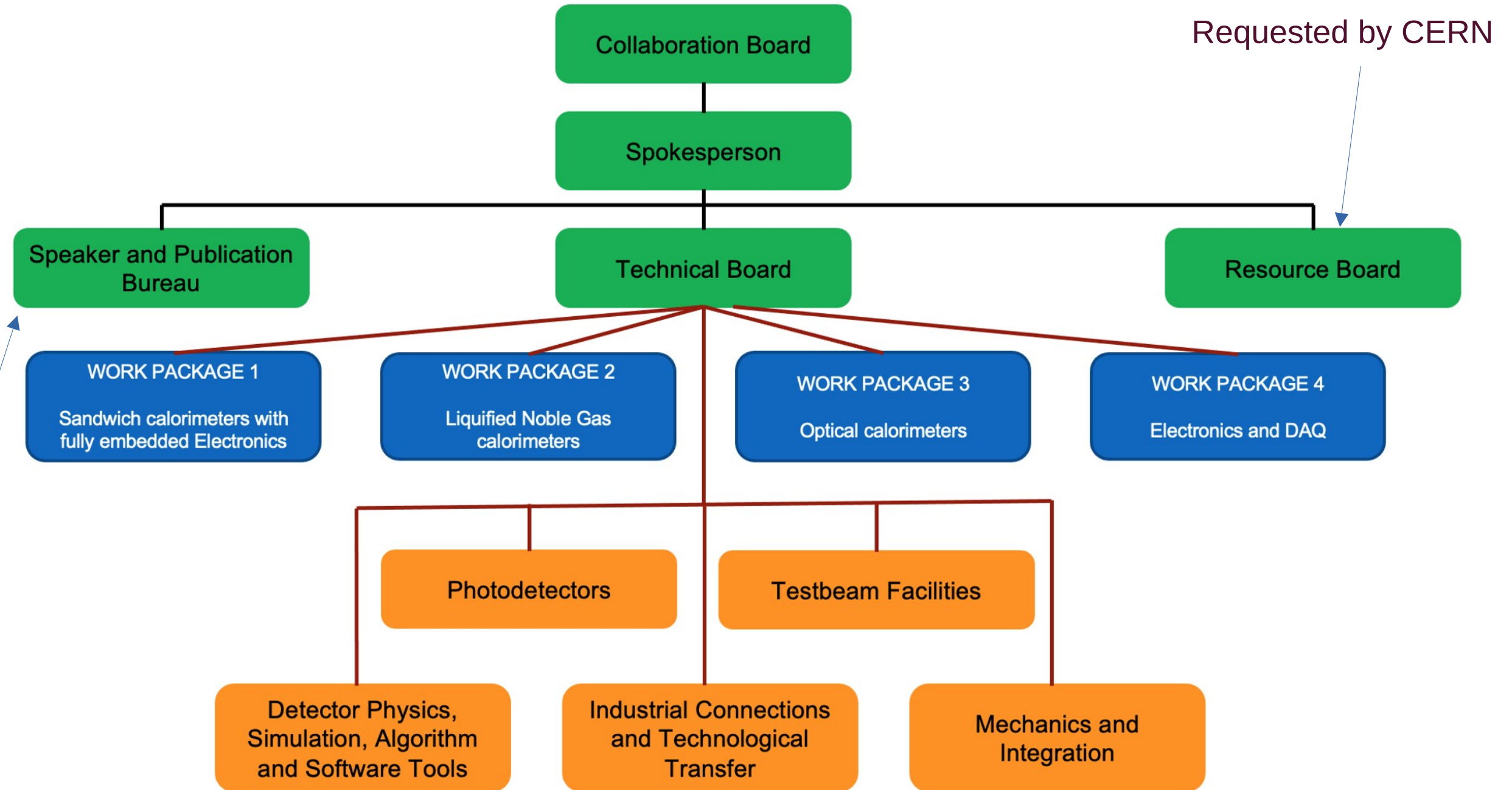
DRD6 Collaboration Meeting
CERN, April 9, 2024

After input-proposal collection and feedback from CERN and DRDC:

MANAGEMENT:

WORK PACKAGES:

WORKING GROUPS:

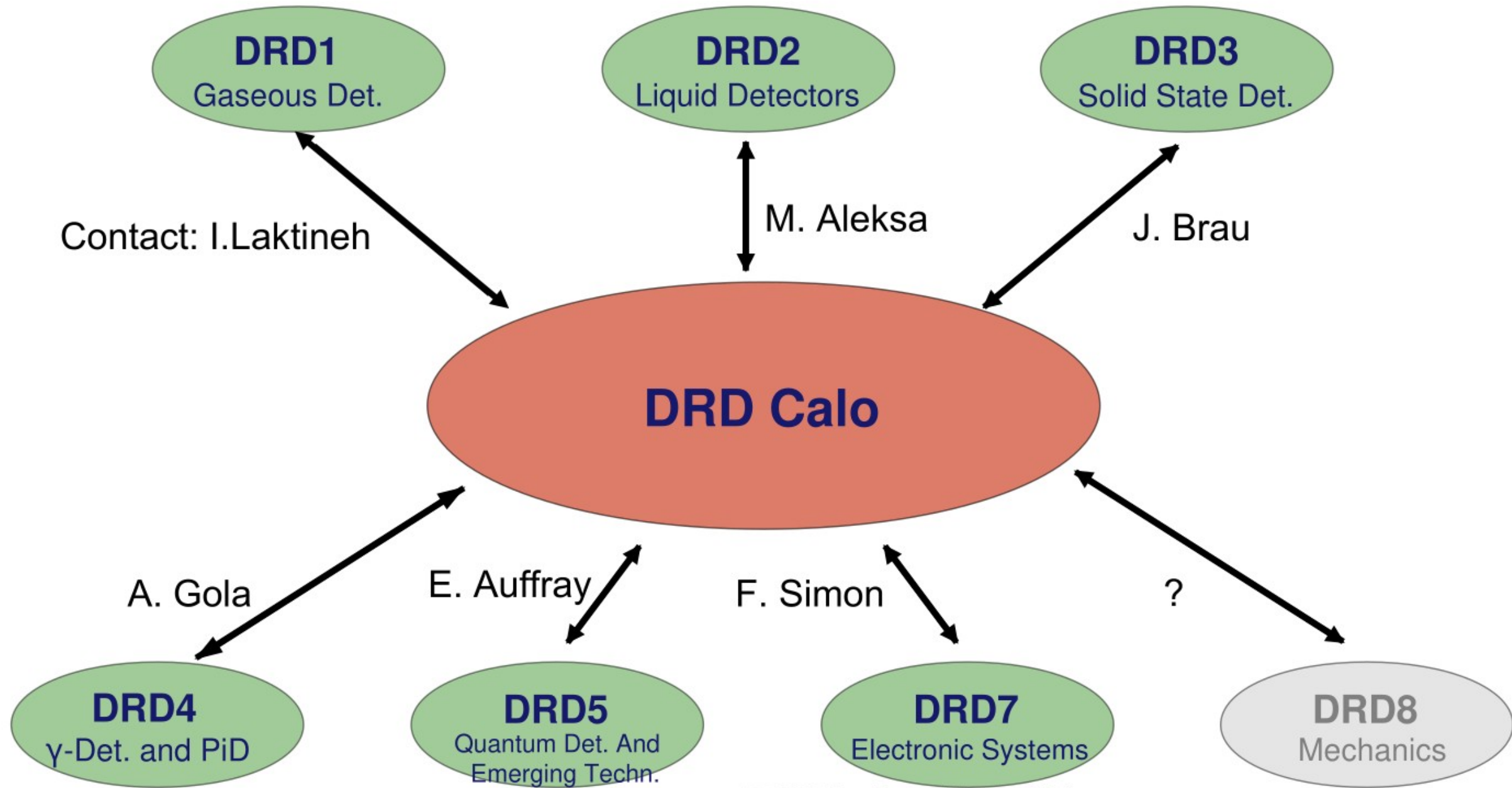


*SPB also in charge for dissemination

- 1) CB-Chair : R.F., elected about one month ago
- 2) S.P. : to be elected in next ~10 days (Roman Poeschl, only candidate)
- 3) W.P. coordinators: process started (WP2 coordinator to be endorsed by CB on next Wednesday)
- 4) Other “top” management positions:
 - Speaker and Publication Bureau Chair
 - Technical Board Chair
 - Resource Board Chair

→ S.P. will identify and propose candidates in next weeks (to be endorsed by CB)

No R&D on primary elements (apart from scint. materials) but adaptation, tuning and integration



WP 1: Sandwich calorimeters with fully embedded electronics

- » Task 1.1: Highly pixelised electromagnetic section (4 sub-tasks)
- » Task 1.2: Hadronic section with optical tiles (2 sub-tasks)
- » Task 1.3: Hadronic section with gaseous readout (3 sub-tasks)

WP 2: Liquefied-noble-gas calorimeters

WP 3: Optical calorimeters: scintillating-based sampling and homogeneous calorimeters

- » Task 3.1: Homogeneous and quasi-homogeneous EM calorimeters (3 sub-tasks)
- » Task 3.2: Innovative sampling EM calorimeters (3 sub-tasks)
- » Task 3.3: Hadronic sampling calorimeters (2 sub-tasks)
- » Task 3.4: Materials (2 sub-tasks)

WP 4: Electronics and DAQ

Elm.
sections

Hadronic
sections

Task/Subtask	Sensitive Material/ Absorber	DRDT
Task 1.1: Highly pixelised electromagnetic section		
Subtask 1.1.1: SiW-ECAL	Silicon/ Tungsten	6.2
Subtask 1.1.2: Highly compact calo	Solid state (Si or GaAs)/Tungsten	6.2
Subtask 1.1.3: DECAL	CMOS MAPS/Tungsten	6.2, 6.3
Subtask 1.1.4: Sc-Ecal	Scintillating plastic strips/Tungsten	6.2
Task 1.2: Hadronic section with optical tiles		
Subtask 1.2.1: AHCAL	Scintillating plastic tiles/Steel	6.2
Subtask 1.2.2: ScintGlassHCAL	Heavy glass tiles/Steel	6.2
Task 1.3: Hadronic section with gaseous readout		
Subtask 1.3.1: T-SDHCAL	Resistive Plate Chambers/Steel	6.2
Subtask 1.3.2: MPGD-HCAL	Multipattern Gas Detectors/Steel	6.2, 6.3
Subtask 1.3.3: ADRIANO3	Resistive Plate Chambers+Scintillating plastic tiles/ Heavy Glass	6.1, 6.2, 6.3

Project	Scintillator/WLS	Photodetector	DRDTs	Target
Task 3.1: Homogeneous and quasi-homogeneous EM calorimeters				
HGCCAL	BGO, LYSO	SiPMs	6.1, 6.2	e^+e^-
MAXICC	PWO, BGO, BSO	SiPMs	6.1, 6.2	e^+e^-
Crilin	PbF ₂ , PWO-UF	SiPMs	6.2, 6.3	$\mu^+\mu^-$
Task 3.2: Innovative Sampling EM calorimeters				
GRAiNITA	ZnWO ₄ , BGO	SiPMs	6.1, 6.2	e^+e^-
SpaCal	GAGG, organic	MCP-PMTs, SiPMs	6.1, 6.3	e^+e^-/hh
RADiCAL	LYSO, LuAG	SiPMs	6.1, 6.2, 6.3	e^+e^-/hh
Task 3.3: (EM+)Hadronic sampling calorimeters				
DRCal	PMMA, plastic	SiPMs, MCP	6.2	e^+e^-
TileCal	PEN, PET	SiPMs	6.2, 6.3	e^+e^-/hh
Task 3.4: Materials				
ScintCal	-	-	6.1, 6.2, 6.3	$e^+e^-/\mu^+\mu^-/hh$
CryoDBD Cal	TeO, ZnSe, LiMoO NaMoO, ZnMoO	n.a.	-	DBD experiments

MoU template yet to be provided by CERN legal service

- still waiting for → I.P. policy most sensitive issue

- ~~Very light template~~

- Can/will be signed from both funding agencies and single institutes

- MoU not supposed to be modified in future

- Very hard process → should go again under full signature cycle
- However does not provide any legal binding
- Moreover NOT strictly required for membership

- Flexibility through “Annexes” (that CB can change whenever necessary or useful):
 - Any change has just to be notified to CERN by providing new version
 - Institute member list in Annex 1 → revise at least once every year
 - Funding agency list in Annex 2
 - Institutes can appear in both Annex 1 and Annex 2
 - ... Common fund contribute in Annex X (if any, it can be set to 0)

- 1) Private Companies can not be full collaboration member
 - can participate through private agreements w/ institutes

 - 2) At least 2 different ways to become full member:
 - a) Signature of MoU or Annex 1
 - b) Letter by the Institute Director/Head stating the willing to participate and the contribute that will, in case, be brought in
- None provide legal binding → both closer to a “gentlemen agreement” than to a contract

Annex 1 → initial version ready (131 Institutes)

- To be updated as soon as we have new institutes (two in the pipeline)
 - To be checked
-
- Send it to Users Office as soon as we have green light
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- Next, registration of institutes and members can start:
 - One module per institute (signed by institute director/head)
 - One module per member (signed by institute director/head)

- Subtasks ↔ Working Units ↔ Projects
 - Independent and self-organised
 - Responsible of their funds, resources, milestones, deliverables
 - Top management role only for
 - a) providing monitoring and support
 - b) catching common issues and synergies
 - optimise resource exploitation

CAVEAT:

This is still part of the ad-interim "bootstrap" procedure

In future, the procedure will be formalised in the Governance Rules that will be discussed and approved by the CB

- 1) Endorsement of this agenda
- 2) Presentation of two new Institute proposed members
 - New York University (Andy Haas)
 - LAPP, Université Grenoble Alpes (Marco Delmastro)
- 3) Endorsement of two new institute membership(s)
- 4) Endorsement of (ad-interim) procedure for appointment of WP coordinators as follows:
 - » Each WP independently proposes a candidate
 - » The CB gives (or does not give) its endorsement to the candidate
- 5) Short presentation by Nicolas Morange, proposed W.P. leader of WP2
- 6) Endorsement of WP2 proposed coordinator

7) Endorsement of (ad-interim) procedure for Spokesperson election as follows:

- » Spokesperson election will be organised electronically using EU-Survey or CERN Limesurvey tool
- » The 50% quorum is required, thus currently 66 institutes have to cast a vote
- » This quorum will be required for all voting rounds that might become necessary
- » One can vote for candidate or abstain
- » The Spokesperson is elected by the absolute majority of all cast votes
- » If the candidate does not reach the absolute majority, a second round of voting is carried out
- » Also in this second round, the Spokesperson is elected by the absolute majority of all cast votes
 - Participation: quorum of at least 50% of eligible voters
 - Election: quorum of at least 50% of votes cast in favour of the candidate
 - Repeat election until quorum reached

8) Endorsement of (ad-interim) procedure for the appointment of the executive-body chairs as follows:

- » The Spokesperson identifies the candidates after consultation with the Proposal Team
- » The CB gives (or does not give) its endorsement to the candidate

Build the full management structures ... need to:

- a) Appoint chairs of SPB, Technical and Resource Boards
- b) Also define Governance Rules, that will (also) define role and composition of above boards
- c) Define “bylaws” whenever thought necessary/useful:
e.g.: rules for “general” publications and talks (whenever full Collaboration is concerned with)

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That's all from my side ...