



lisa

The LISA Consortium & Working Groups

M Hewitson

Joint NLST/SST Meeting

Johns Hopkins, Baltimore

August 29th, 2018

What is the Consortium?

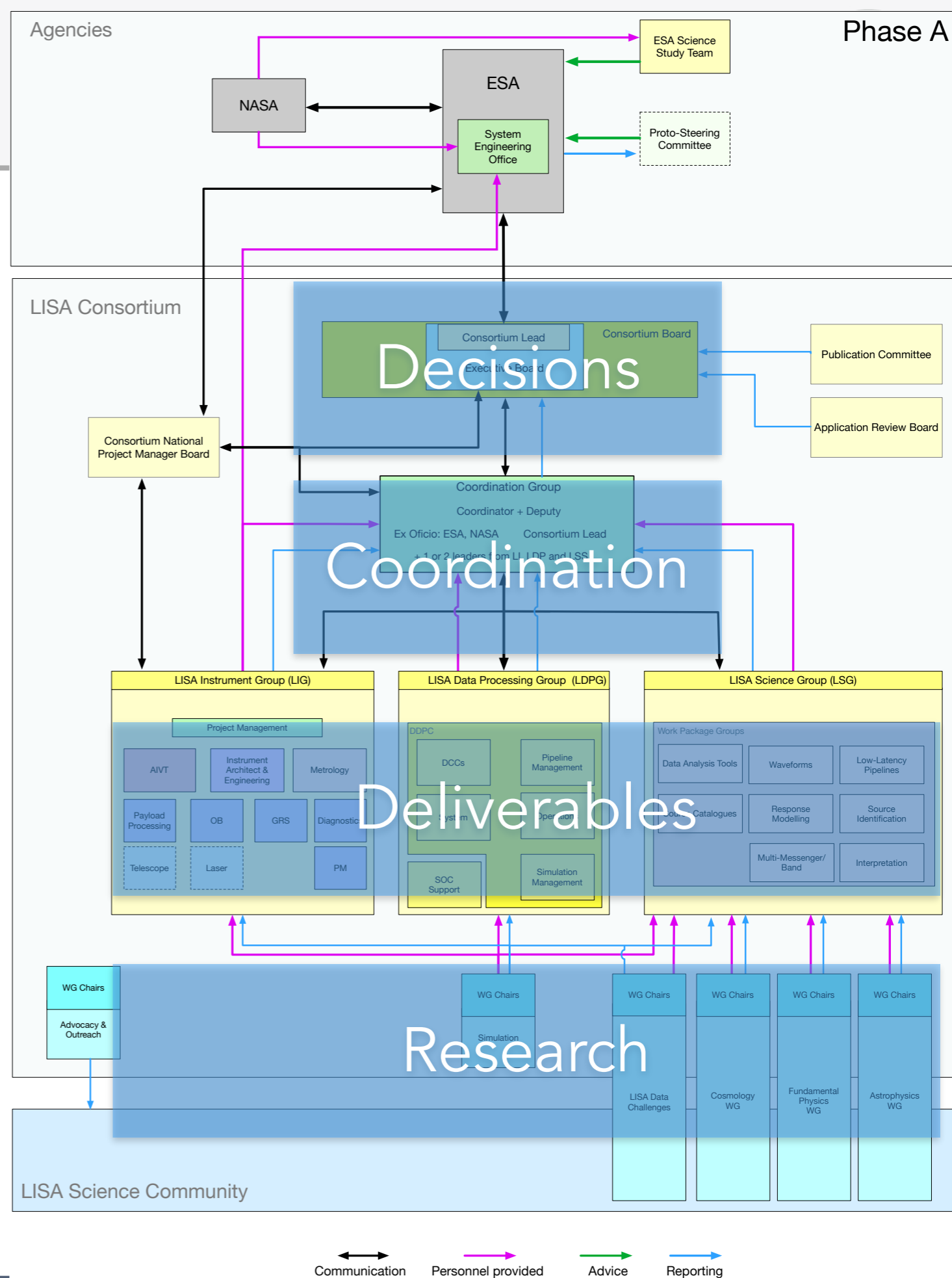


What is The LISA Consortium?

- A collection of scientists focused on ESA's LISA mission
- Representatives from many groups and nationalities around the world
- Commits to deliver certain elements of the mission

Consortium Structure

- Consortium Board
 - Executive Board
- Coordination Groups
 - LISA Instrument Group
 - LISA Data Processing Group
 - LISA Science Group
- Working Groups



Consortium Membership



Consortium Membership Types

- Full Member
 - Commits to spend a specified amount of time on Consortium work
 - Commits to directly work towards Consortium deliverables
- Associate Member
 - Doesn't promise to commit time or to deliverables
 - But is an active member of at least one Working Group
- Ex-officio
 - membership through direct invitation of the board



Member Groups


- Applications submitted as an external group (institution) of one or more scientists
 - named “external groups”
 - typically an external group maps to an institute
- An external group can contain a mix of full and associate members
 - full members must declare FTE availability
- Member groups have
 - a lead scientist
 - a name
 - a statement of work
 - a set of one or more full or associate members

Member rights & duties




- Different rights and duties developed for Full and Associate members
- A code of conduct has been developed
- Documents publicly available at:

<https://signup.lisamission.org>

 Laser Interferometer Space Antenna	Ref : LISA-LCST-MIS-PR-001	
	Issue : 1	Revision : 0
	Date : 2018/03/20	Page : 1/ 8


LISA Consortium Application Process

N/Ref :	LISA-LCST-MIS-PR-001
Title	LISA Consortium Application Process
Abstract	A description of the LISA Consortium application process.

 Laser Interferometer Space Antenna	Ref : LISA-LCST-MIS-POL-001	
	Issue : 1	Revision : 0
	Date : 2018/06/13	Page : 1/ 5

LISA Consortium Code of Conduct

N/Ref :	LISA-LCST-MIS-POL-001
Title	LISA Consortium Code of Conduct
Abstract	LISA Consortium Code of Conduct.

 Laser Interferometer Space Antenna	Ref : LISA-LCST-MIS-PL-001	
	Issue : 1	Revision : 4
	Date : 2018/03/20	Page : 1/ 25

LISA Consortium Management Plan

N/Ref :	LISA-LCST-MIS-PL-001
Title	LISA Consortium Management Plan
Abstract	LISA Consortium Management plan.





Applications so far...

- We have received ~160 (complete) group applications
- 135 were accepted by board in first batch of processing
- Notification mails went out on July 5th
 - 125 accepted so far
- Potential member count (including non-approved applications):
 - 919 members
 - 439 full members
 - 460 associate members
 - Total FTE of ~180 (full members only)



Summary of group memberships

LIG	181
LDPG	72
LSG	207
AstroPhy WG	314
Cos WG	173
FP WG	216
Wav WG	80
Sim WG	40
LDC WG	119
Advocacy WG	31



Member Management

- Applications are all stored in a database
- Processing done by the Application Review Board by hand
- Simple/obvious cases are staged for board approval
- More difficult cases are discussed
 - with WG chairs and Board, as appropriate
- Some cases require feedback/discussion with the applicants

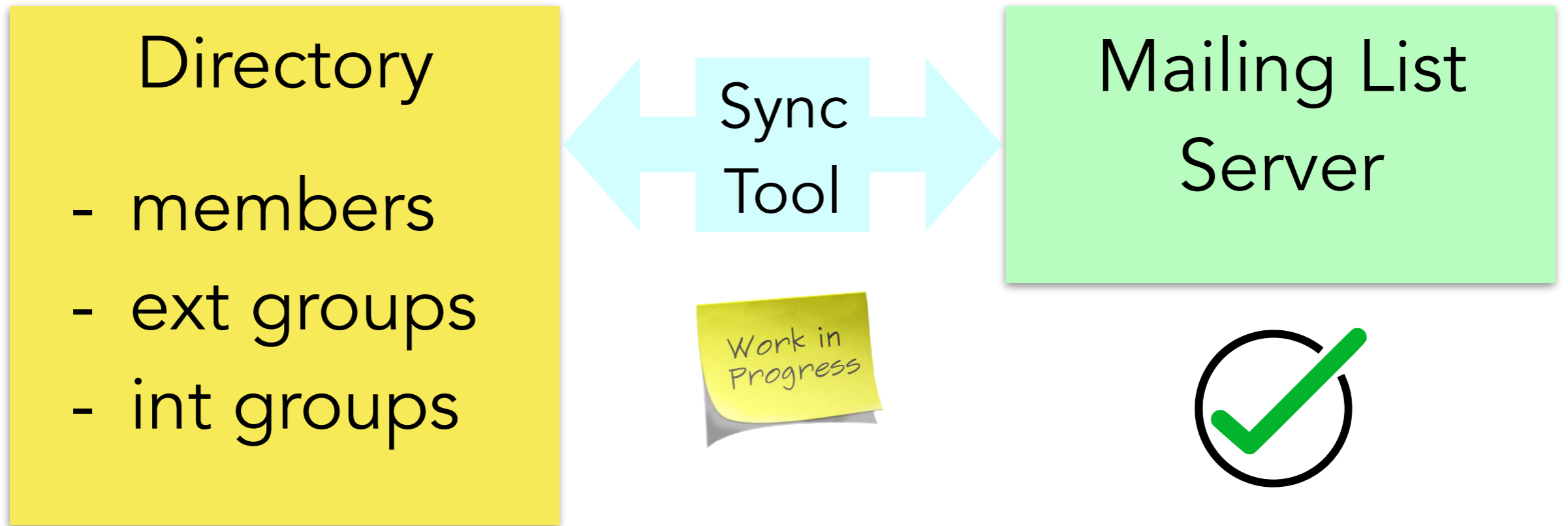


Consortium Directory

- **Phase 1:** administrator access for a select few
- **Phase 2:** Access for group leads
- **Phase 3:** Access for all members to manage their own accounts and groups

Lisamission Consortium Directory Manage member

ID	Name	Externalgroups	Consortiumgroups	Functions
872	Karsten Danzmann	AEI Hannover	Consortium Lead, Exec Board, Board Member, LIG Member	[edit] [delete]
873	Gerhard Heinzel	AEI Hannover	LIG Member, Sim WG	[edit] [delete]
874	Martin Hewitson	AEI Hannover	Coordinator, Coordination Group, LIG Member, LDPG Member, LSG Member, Sim WG, LDC WG, Publication Committee	[edit] [delete]
875	Jens Reiche	AEI Hannover	LIG Member	[edit] [delete]
876	System Engineer 1	AEI Hannover	LIG Member	[edit] [delete]
877	System Engineer 2	AEI Hannover	LIG Member	[edit] [delete]
878	Oliver Gerberding	AEI Hannover	LIG Member	[edit] [delete]
879	Karsten Wiesner	AEI Hannover	LDPG Member, Sim WG	[edit] [delete]



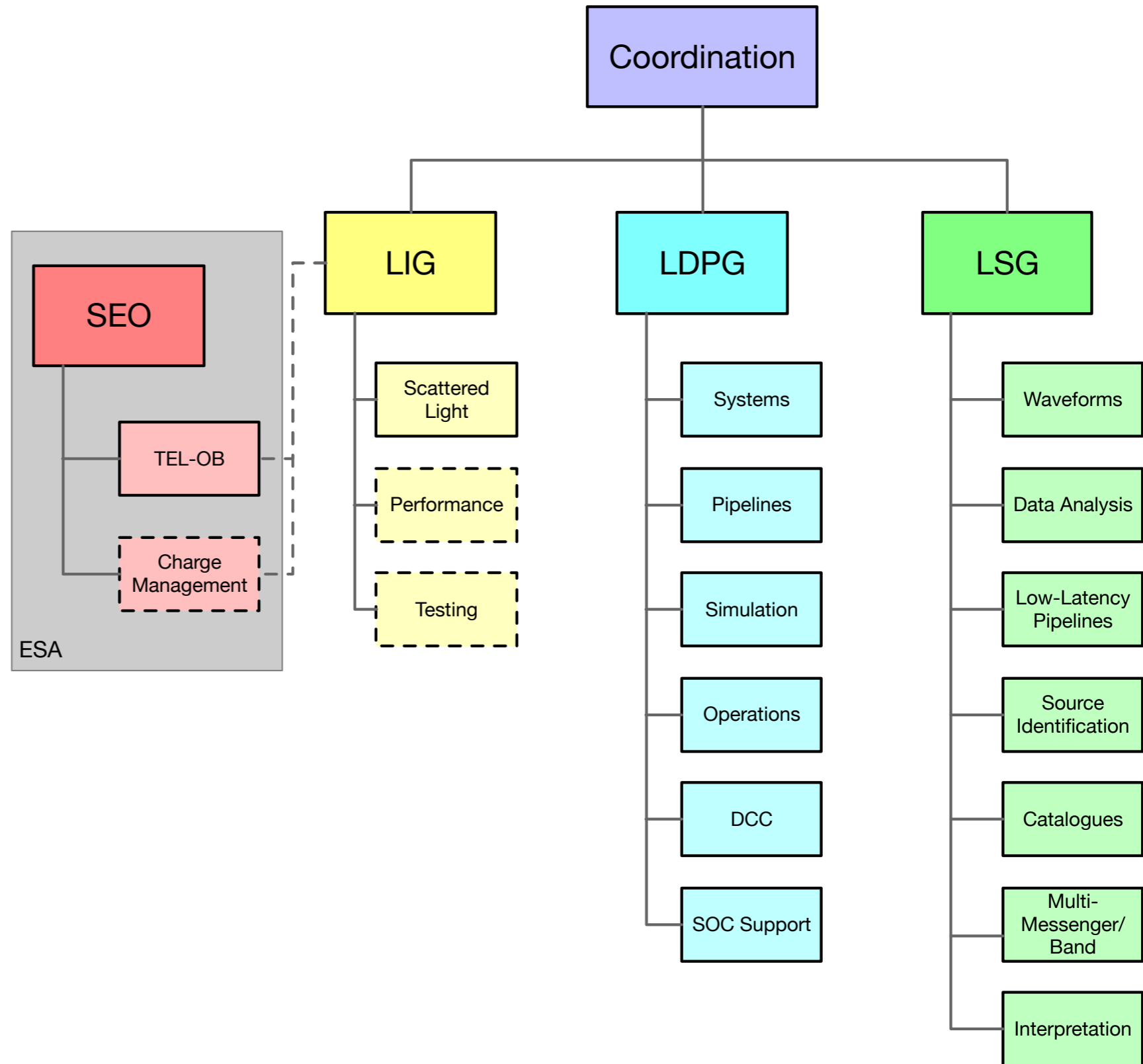
Aiming for mid-September to have production system on-line

Status of Consortium Groups



Coordination Groups

- Coordinate Consortium work leading to deliverables
- Work is organised in working groups
- Provide a link to the external community via working groups



Working Groups



- Aiming to address the need to include community members in instrument / measurement science
- A handful of applications would fit such a WG
 - associate members, strong interest in instrumentation
- Working group will undergo a test phase to better assess direction, goals, members, etc
 - Guido Mueller agreed to chair and promote this



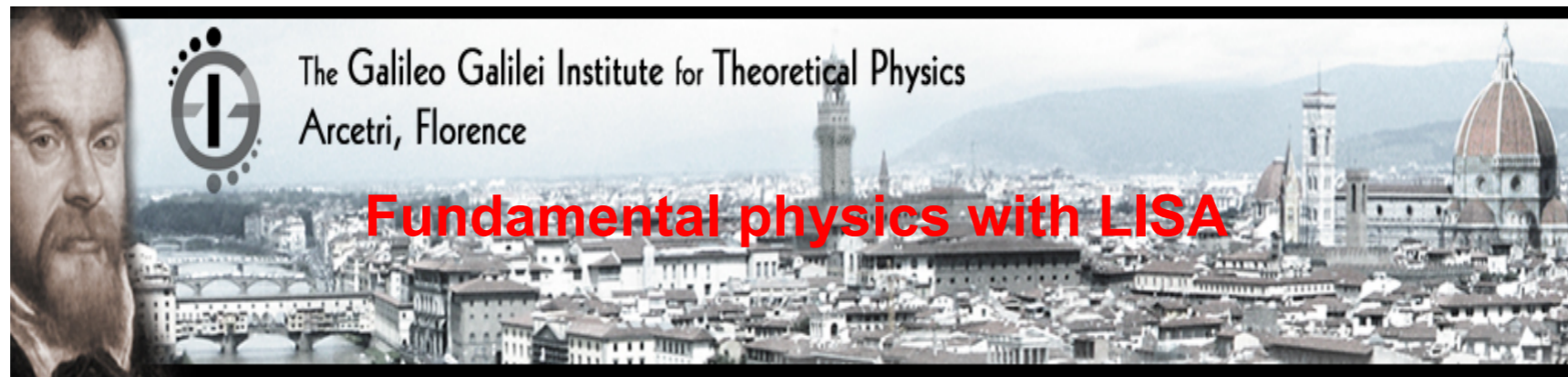
Simulation Working Group

- Simulator Requirements Document is in progress
- Focus currently on the design and development of a prototype end-to-end performance simulator
 - cross-check of TDI output with available simulators and analytical expressions
 - Completely modular
 - Parallelizable
- Chairs:
 - Luigi Ferraioli
 - Joseph Martino
 - Daniele Vetrugno



Cosmology Working Group

- No bias, whatever concerns cosmology relevant for LISA
- Cosmology Working Group is extremely active: 6 meetings since 2015
 - Last meeting: Helsinki in June 2018
 - next meeting: Madrid in Jan 2019 (tbc)
 - Aim of the meetings: trigger collaborative projects
- Chairs:
 - Chiara Caprini
 - Germano Nardini
 - Robert Caldwell



- First face-to-face meeting
 - 12-14 Nov 2018
 - Galilei Institute, Florence (IT)
 - <http://www.ggi.infn.it/showevent.pl?id=305>
 - Deadline to apply: TBD
 - Chairs
 - Philippe Jetzer
 - Nico Yunes
 - Thomas Hertog
 - 1st meeting of the LISA WG on Fundamental Physics
 - Discuss tests of GR and of fundamental theoretical physics with future LISA observations
 - Gather together the diverse theoretical physics community, the astro community, and the data-analysis community
 - Structure of the WG webpage
 - Discuss deliverables for this WG
- Organizers:** E. Barausse, T. Hertog, P. Jetzer, P. Pani, N. Yunes



Astrophysics Working Group

- First face-to-face meeting planned
 - Dec 12-14 2018
 - IAP, Paris
- Chairs
 - Shane Larson
 - Lucio Mayer
 - Gijs Nelemans
 - Marta Volonteri

1st LISA Astrophysics Working Group Workshop

12-14 décembre 2018
Institute d'Astrophysique de Paris
Fuseau horaire Europe/Paris

[Vue d'ensemble](#)
[Appel à contribution](#)
[Ordre du jour](#)
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Goals of meeting:

- present WG and provide first aggregation event
- shape WG in response to community demand
- explore synergies with other relevant scientific research domains (eg high energy astrophysics, high-z galaxies/AGN, etc)



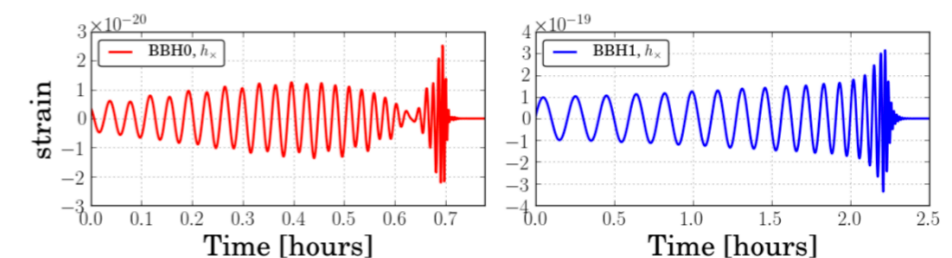
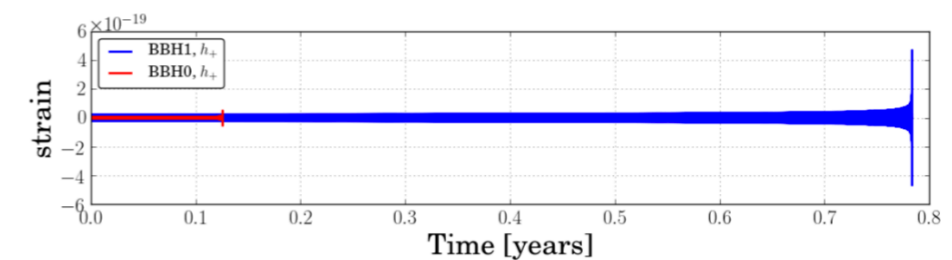
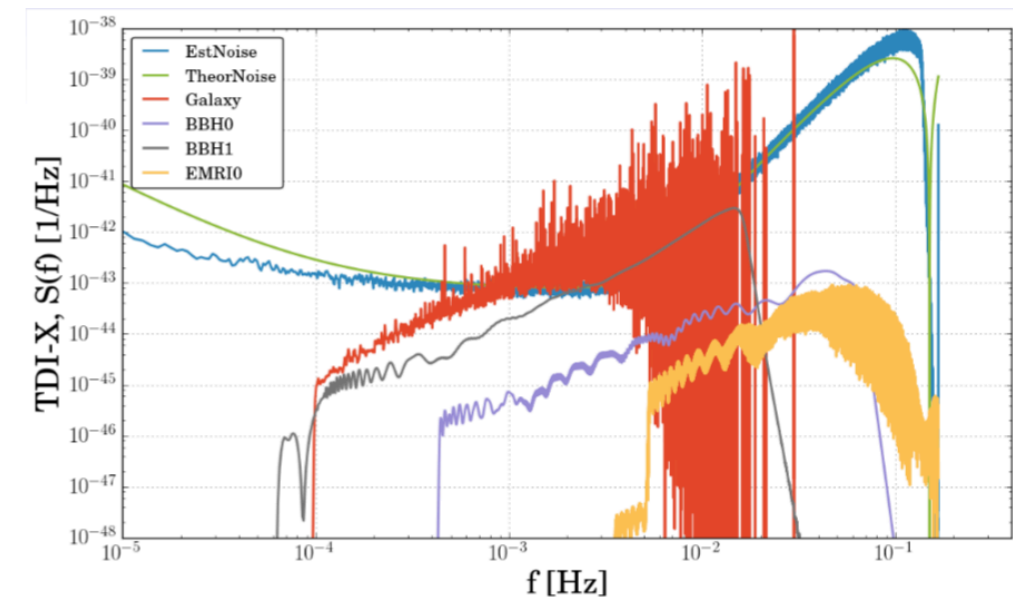
Waveform Modelling Working Group

- New working group recently confirmed by the board
- Chairs:
 - Deirdre Shoemaker
 - Helvi Witek
 - Maarten van de Meent
 - Niels Warburton
- Focus on the large number of work packages which touch on waveform modelling
- Gather support of the waveform modelling community and bring them in to the consortium

LISA Data Challenges Working Group



- Working Group to coordinate and develop LISA Data Challenges
 - a platform to develop and test data analysis pipelines and scientific investigations
 - generate simulated data
- Project based challenges
 - focus development and answering of questions
- Strong ties to the LDPG and LSG
- Bi-weekly teleconferences
- Chairs
 - Stas Babak
 - Michele Vallisneri



Advocacy & Outreach Working Group



- Chairs
 - Kelly Holly-Bockelmann (Advocacy to broader science community)
 - Martin Hendry (Outreach initiatives)
- The Executive Committee identified several priorities that will become the first Work Packages:
 - 1. Make (and populate) an easy-to-find, publicly-available repository for LISA talks, images, outreach materials, white papers, etc.
 - 2. Create and/or update banners, handouts, and materials for conferences.
 - 3. Create and sell t-shirts, coffee mugs, etc. and use the profit to fund outreach efforts.
 - 4. Team up with current efforts to make webtools (WP 7.7, for example) to create outreach-level webtools for astronomers.
 - 5. Make a concerted and coordinated effort to have a LISA presence at astronomy conferences through invited talks/special sessions/exhibits/entry-level workshops.
- Upcoming: once mailing lists are up and running, contact A+O members to welcome and coordinate!



Publication Committee

- Chair: Nelson Christensen
- Solicited representatives from all groups
- Beginning to discuss and form policies and guidelines
- Some guiding principles
 - Protect the interests of the LISA Consortium.
 - Share material for presentations and publications.
 - Promote the careers of young scientists.
 - Encourage publications
 - Provide review services



Inclusion & Diversity Committee

- Aim to make the Consortium open and welcoming to all
- Be proactive:
 - early point(s) of contact
 - member training / awareness
 - mentor program
 - safe environment for all members
- Chairs appointed:
 - Elena Rossi
 - Alberto Sesana
 - US Rep?
- Reach out for volunteers from Consortium

Next Consortium meeting



LISA Consortium #3

5-7 novembre 2018

Palais du Pharo

Fuseau horaire Europe/Paris

Vue d'ensemble

Ordre du jour

Liste des participants

Contacts

✉ eric.prieto@lam.fr

✉ petiteau@apc.univ-paris...



The **3rd LISA Consortium Meeting** will take place from 5th to 7th of November 2018 at "Palais du PHARO" in Marseille - France.

This meeting is open to the member of the LISA Consortium (full member and associate). The number of participants is limited to 180. The registration fees is 120 euros. The link for registration and payment will be provided soon.

The meeting will be organised as:

- day 1 (Mon. 5th): plenary: status
- day 2 (Tue. 6th): parallel: WG meetings,
- day 3 (Wed. 7th): plenary: WG reports and wrap up.

The detailed program will be available soon.

<https://indico.in2p3.fr/e/LISAConsortium3>



Summary

- Consortium has gathered a lot of momentum and is hard at work
 - next full Consortium meeting Nov 5-7 2018, Marseille
- Heading for ~1000 members
- Working groups have strong support from community
- Mission (System and Instrument) Phase A studies have started

Thanks!