



# DR1 Science Key Projects: how are we doing?

Luigi Guzzo EC Publication Group (ECPGS) Chair EC Cosmology Science Coordinator











## **EC Publication Groups**





## **EC Publication Groups**





### **DR1 Science KP Definition Document**



Title:	Euclid Consortium DR1 science Key Projects document			
Date:	15/7/2024	Issue:	1.3	
Reference:	EUCL-UMI-PUB-X-YYY			
Custodians:	L. Guzzo, J. Brinchmann			

Prepared by:		Date :	Signature :
L. Guzzo, J. Brinchmann	ECPG-S Chairs		
Science Coordination Group			
Contributors:			
ECPG-Science (Members listed in Appendix A), Science Working Groups, IST:L, IST:NL, OU-LE3			
Endorsed by:			



## The DR1 KP scenario

	# KPs	# papers
JOINT COSMOLOGY	4	17
Galaxy Clustering	8	29
Weak lensing +LE3	9	34
Strong Lensing	4	23
Theory	2	6
CMB X-Corr	4	15
Cosm. Simulations	1	<ul> <li>I see a second se</li></ul>
Galaxy Clusters	8	37
JOINT LEGACY	3	19
Galaxy & AGN Evolution	7	50
Primeval Universe	5	43
Local Universe	4	23
Milky Way & RSP	3	15
SNe and Transients	1	2
TOTAL:	63	>300
active (Ist July 2025):	57	



### **Open calls for KP Coordinators**



Questions Responses 1 Settings



- I. June 2024
- 2. October 2024
- 3. June 2025 (ongoing)





## How is the Italian community doing?

### DR1 KP Coordinators: country distribution (1st round, July 2024)



ITA: 23 out of 85 coordinators

### DR1 KP Coordinators: country distribution (1st round, July 2024)



ITA: 23 out of 85 coordinators

## Same after 2nd round (Fall 2024)

Country distribution of DR1 KP Coordinators (Jun 2025)



ITA: 42 out of 129 coordinators

## Career stage distribution (ITA only)



KP Coord. career stage (Italian only)













• Italian community extremely well positioned in leading Euclid DR1 science, also in areas where when Euclid started the community was limited:







- Italian community extremely well positioned in leading Euclid DR1 science, also in areas where when Euclid started the community was limited:
  - 42 out of 129 overall KP coordinators







- Italian community extremely well positioned in leading Euclid DR1 science, also in areas where when Euclid started the community was limited:
  - 42 out of 129 overall KP coordinators
  - Presence of an Italian Coordinator in each of the 4 Joint Cosmology KPs in particular J1 & J2, see also important roles in CLOE and in 6 out of 8 Galaxy Clustering KPs







- Italian community extremely well positioned in leading Euclid DR1 science, also in areas where when Euclid started the community was limited:
  - 42 out of 129 overall KP coordinators
  - Presence of an Italian Coordinator in each of the 4 Joint Cosmology KPs in particular J1 & J2, see also important roles in CLOE and in 6 out of 8 Galaxy Clustering KPs
  - Large presence in legacy science







- Italian community extremely well positioned in leading Euclid DR1 science, also in areas where when Euclid started the community was limited:
  - 42 out of 129 overall KP coordinators
  - Presence of an Italian Coordinator in each of the 4 Joint Cosmology KPs in particular J1 & J2, see also important roles in CLOE and in 6 out of 8 Galaxy Clustering KPs
  - Large presence in legacy science
- The reasons for this:







- Italian community extremely well positioned in leading Euclid DR1 science, also in areas where when Euclid started the community was limited:
  - 42 out of 129 overall KP coordinators
  - Presence of an Italian Coordinator in each of the 4 Joint Cosmology KPs in particular J1 & J2, see also important roles in CLOE and in 6 out of 8 Galaxy Clustering KPs
  - Large presence in legacy science
- The reasons for this:
  - A. Seeds: a <u>bottom-up</u> scientific project that stemmed from early scientific leadership and interest in these areas (SPACE/DUNE 2007 ESA proposals).







- Italian community extremely well positioned in leading Euclid DR1 science, also in areas where when Euclid started the community was limited:
  - 42 out of 129 overall KP coordinators
  - Presence of an Italian Coordinator in each of the 4 Joint Cosmology KPs in particular J1 & J2, see also important roles in CLOE and in 6 out of 8 Galaxy Clustering KPs
  - Large presence in legacy science
- The reasons for this:
  - A. Seeds: a <u>bottom-up</u> scientific project that stemmed from early scientific leadership and interest in these areas (SPACE/DUNE 2007 ESA proposals).
  - B. Resources: solid and regular support to science preparation by the Italian Space Agency (ASI) allowed us to nurture these initial seeds







- Italian community extremely well positioned in leading Euclid DR1 science, also in areas where when Euclid started the community was limited:
  - 42 out of 129 overall KP coordinators
  - Presence of an Italian Coordinator in each of the 4 Joint Cosmology KPs in particular J1 & J2, see also important roles in CLOE and in 6 out of 8 Galaxy Clustering KPs
  - Large presence in legacy science
- The reasons for this:
  - A. Seeds: a <u>bottom-up</u> scientific project that stemmed from early scientific leadership and interest in these areas (SPACE/DUNE 2007 ESA proposals).
  - B. **Resources:** <u>solid and regular support to science preparation by the Italian Space Agency</u> (ASI) allowed us to nurture these initial seeds
- The future:







- Italian community extremely well positioned in leading Euclid DR1 science, also in areas where when Euclid started the community was limited:
  - 42 out of 129 overall KP coordinators
  - Presence of an Italian Coordinator in each of the 4 Joint Cosmology KPs in particular J1 & J2, see also important roles in CLOE and in 6 out of 8 Galaxy Clustering KPs
  - Large presence in legacy science
- The reasons for this:
  - A. Seeds: a <u>bottom-up</u> scientific project that stemmed from early scientific leadership and interest in these areas (SPACE/DUNE 2007 ESA proposals).
  - B. **Resources:** <u>solid and regular support to science preparation by the Italian Space Agency</u> (ASI) allowed us to nurture these initial seeds
- The future:
  - 1. Deliver promised science!







- Italian community extremely well positioned in leading Euclid DR1 science, also in areas where when Euclid started the community was limited:
  - 42 out of 129 overall KP coordinators
  - Presence of an Italian Coordinator in each of the 4 Joint Cosmology KPs in particular J1 & J2, see also important roles in CLOE and in 6 out of 8 Galaxy Clustering KPs
  - Large presence in legacy science
- The reasons for this:
  - A. Seeds: a <u>bottom-up</u> scientific project that stemmed from early scientific leadership and interest in these areas (SPACE/DUNE 2007 ESA proposals).
  - B. Resources: solid and regular support to science preparation by the Italian Space Agency (ASI) allowed us to nurture these initial seeds
- The future:
  - 1. Deliver promised science!
  - 2. Consolidate roles of the youngest generation







- Italian community extremely well positioned in leading Euclid DR1 science, also in areas where when Euclid started the community was limited:
  - 42 out of 129 overall KP coordinators
  - Presence of an Italian Coordinator in each of the 4 Joint Cosmology KPs in particular J1 & J2, see also important roles in CLOE and in 6 out of 8 Galaxy Clustering KPs
  - Large presence in legacy science
- The reasons for this:
  - A. Seeds: a <u>bottom-up</u> scientific project that stemmed from early scientific leadership and interest in these areas (SPACE/DUNE 2007 ESA proposals).
  - B. **Resources:** <u>solid and regular support to science preparation by the Italian Space Agency</u> (ASI) allowed us to nurture these initial seeds
- The future:
  - 1. Deliver promised science!
  - 2. Consolidate roles of the youngest generation
  - 3. Try and extend into areas where we are less present (Weak Lensing), to fully benefit of full cosmological power of Euclid





### Q & A discussion on KP development





### Extra slides

EC Scientist & SWG



EC Scientist & SWG
























#### Science flow: from projects to publications





Feuchd	Project Definition Document	Ref.: Issue: Date: Page:	
--------	-----------------------------	-----------------------------------	--

Title :	Euclid Consortium Standard and Key Project Definition Document					
Date:	07/05/20	Issue:	Version 1.1			
Reference:						
Custodian:	Luigi Guzzo, Hendrik Hoekstra, Thomas Kitching, William Percival					

Authors :	Date :	Signature :
Gigi Guzzo		
Henk Hoekstra		
Tom Kitching		
Wil Percival		
Contributors :		
Yannick Mellier		
Peter Schneider		
The ECPG members are listed in the appendices outlining the key projects		
Approved by :		
ECB		
Authorised by :		
Yannick <u>Mellier</u>		

#### **Euclid Consortium Publication Policy**

Authors:	Date:	Signature:			
Yannick Mellier					
Peter Schneider					
Contributors	Date:	Signature:			
Jarle Brinchmann					
Luigi Guzzo					
Henk Hoekstra					
Tom Kitching					
Will Percival					
Patrick Simon					
Approved:	Date:	Signature:			
Ralf Bender					
Raymond Carlberg (v. 2.00 and above)					
Francisco Castander					
Andrea Cimatti					
Mark Cropper					
Sven Derijcke (v. 2.00 and above)					
Antonio Da Silva					
Hannu Kurki-Suonio					
Olivier Le Fèvre					
Per Lilje					
Yannick Mellier					
Georges Meylan					
Bob Nichol					
Kristian Pedersen					
Lucia Popa					
Rafael Rebolo Lopez					
Jason Rhodes					
Hans-Walter Rix					
Huub Rottgering					
Roberto Scaramella					
Romain Teyssier (v. 1.07 and above)					
Werner Zeilinger					
Authorised:	Date:	Signature:			
Yannick Mellier	February 14, 2018				

The presented document is Proprietary information of the Euclid Consortium.





1. Open call to select KP Coordinators (1.1, 1.2)



- 1. Open call to select KP Coordinators (1.1, 1.2)
  - <u>Common call</u> for all KPs in homogeneous areas, coordinated by ECPGS (ECPGS enlarged as to properly handle these tasks)



- 1. Open call to select KP Coordinators (1.1, 1.2)
  - <u>Common call</u> for all KPs in homogeneous areas, coordinated by ECPGS (ECPGS enlarged as to properly handle these tasks)
  - <u>Selection panels including members from all involved SWGs plus ECPGS representative</u>



- 1. Open call to select KP Coordinators (1.1, 1.2)
  - <u>Common call</u> for all KPs in homogeneous areas, coordinated by ECPGS (ECPGS enlarged as to properly handle these tasks)
  - <u>Selection panels including members from all involved SWGs plus ECPGS representative</u>
  - <u>Application repository</u>: open to selection panels and visible to ECDC, which can join any of the panel meetings and advise ECPGS on any information they may deem important.



- 1. Open call to select KP Coordinators (1.1, 1.2)
  - <u>Common call</u> for all KPs in homogeneous areas, coordinated by ECPGS (ECPGS enlarged as to properly handle these tasks)
  - <u>Selection panels including members from all involved SWGs plus ECPGS representative</u>
  - <u>Application repository</u>: open to selection panels and visible to ECDC, which can join any of the panel meetings and advise ECPGS on any information they may deem important.
  - Transparent process: improved ECPGS supervision and liaising with ECDC



- 1. Open call to select KP Coordinators (1.1, 1.2)
  - <u>Common call</u> for all KPs in homogeneous areas, coordinated by ECPGS (ECPGS enlarged as to properly handle these tasks)
  - <u>Selection panels including members from all involved SWGs plus ECPGS representative</u>
  - <u>Application repository</u>: open to selection panels and visible to ECDC, which can join any of the panel meetings and advise ECPGS on any information they may deem important.
  - Transparent process: improved ECPGS supervision and liaising with ECDC
- 2. KP implementation and paper/sub-project lead definition



- 1. Open call to select KP Coordinators (1.1, 1.2)
  - <u>Common call</u> for all KPs in homogeneous areas, coordinated by ECPGS (ECPGS enlarged as to properly handle these tasks)
  - <u>Selection panels including members from all involved SWGs plus ECPGS representative</u>
  - <u>Application repository</u>: open to selection panels and visible to ECDC, which can join any of the panel meetings and advise ECPGS on any information they may deem important.
  - Transparent process: improved ECPGS supervision and liaising with ECDC
- 2. <u>KP implementation and paper/sub-project lead definition</u>
  - Selection panels remain in place as <u>implementation panel</u>: maintain link to ECPGS



- 1. Open call to select KP Coordinators (1.1, 1.2)
  - <u>Common call</u> for all KPs in homogeneous areas, coordinated by ECPGS (ECPGS enlarged as to properly handle these tasks)
  - <u>Selection panels including members from all involved SWGs plus ECPGS representative</u>
  - <u>Application repository</u>: open to selection panels and visible to ECDC, which can join any of the panel meetings and advise ECPGS on any information they may deem important.
  - Transparent process: improved ECPGS supervision and liaising with ECDC
- 2. KP implementation and paper/sub-project lead definition
  - Selection panels remain in place as <u>implementation panel</u>: maintain link to ECPGS
  - <u>Implementation period</u>: newly appointed KP Coordinators discuss with the panel the list from DR# KP Definition Document: set priorities, identify papers/sub-projects ready to start and their leads.



- 1. Open call to select KP Coordinators (1.1, 1.2)
  - <u>Common call</u> for all KPs in homogeneous areas, coordinated by ECPGS (ECPGS enlarged as to properly handle these tasks)
  - <u>Selection panels including members from all involved SWGs plus ECPGS representative</u>
  - <u>Application repository</u>: open to selection panels and visible to ECDC, which can join any of the panel meetings and advise ECPGS on any information they may deem important.
  - Transparent process: improved ECPGS supervision and liaising with ECDC
- 2. KP implementation and paper/sub-project lead definition
  - Selection panels remain in place as <u>implementation panel</u>: maintain link to ECPGS
  - <u>Implementation period</u>: newly appointed KP Coordinators discuss with the panel the list from DR# KP Definition Document: set priorities, identify papers/sub-projects ready to start and their leads.
  - Take the needed time: 3 months expected to produce first list of paper leads



- 1. Open call to select KP Coordinators (1.1, 1.2)
  - <u>Common call</u> for all KPs in homogeneous areas, coordinated by ECPGS (ECPGS enlarged as to properly handle these tasks)
  - Selection panels including members from all involved SWGs plus ECPGS representative
  - <u>Application repository</u>: open to selection panels and visible to ECDC, which can join any of the panel meetings and advise ECPGS on any information they may deem important.
  - Transparent process: improved ECPGS supervision and liaising with ECDC
- 2. KP implementation and paper/sub-project lead definition
  - Selection panels remain in place as <u>implementation panel</u>: maintain link to ECPGS
  - <u>Implementation period</u>: newly appointed KP Coordinators discuss with the panel the list from DR# KP Definition Document: set priorities, identify papers/sub-projects ready to start and their leads.
  - Take the needed time: 3 months expected to produce first list of paper leads
  - <u>Bottom-up process preserved</u>, but <u>phased to account for varying complexity</u> and involving ECPGS, providing overall view and mediation if needed.



- 1. Open call to select KP Coordinators (1.1, 1.2)
  - <u>Common call</u> for all KPs in homogeneous areas, coordinated by ECPGS (ECPGS enlarged as to properly handle these tasks)
  - <u>Selection panels including members from all involved SWGs plus ECPGS representative</u>
  - <u>Application repository</u>: open to selection panels and visible to ECDC, which can join any of the panel meetings and advise ECPGS on any information they may deem important.
  - Transparent process: improved ECPGS supervision and liaising with ECDC
- 2. KP implementation and paper/sub-project lead definition
  - Selection panels remain in place as <u>implementation panel</u>: maintain link to ECPGS
  - <u>Implementation period</u>: newly appointed KP Coordinators discuss with the panel the list from DR# KP Definition Document: set priorities, identify papers/sub-projects ready to start and their leads.
  - Take the needed time: 3 months expected to produce first list of paper leads
  - <u>Bottom-up process preserved</u>, but <u>phased to account for varying complexity</u> and involving ECPGS, providing overall view and mediation if needed.
- 3. Explicit coordination among KPs and improved links to SWG-specific sub-projects

## Setting up selection panels

- 1. PANEL JA: Joint Cosmology Key Projects #1 & #2
- 9 members
- 2. PANEL JB: Joint Cosmology Key Project #3
- 11 members
- 3. PANEL GC: Galaxy Clustering SWG (GC-SWG)
- 6 members
- 4. PANEL WL : Weak Lensing SWG (WL-SWG)
- 6 members
- 5. PANEL SL: Strong Lensing SWG (SL-SWG)
- 6 members
- 6. PANEL TH: Theory SWG (TH-SWG)
- 7 members
- 7. PANEL CL: Clusters of Galaxies SWG (CL-SWG)
- 10 members
- 8. PANEL SIM: Cosmological Simulations SWG (CS-SWG)
- 6 members
- 9. PANEL CMBX: CMB-Cross SWG (CMBX-SWG)
- 8 members
- 10. PANEL LU: Local Universe SWG (LU-SWG)
- 4 members
- 11.<u>PANEL MW</u>: Milky Way and Resolved Stellar Pop. SWG (MW-SWG)
- 4 members
- 12.PANEL SNT: Supernovae and Transients SWG (SNT-SWG)
- 4 members
- ~50 EC members involved: bottom-up process with global coordination

#### Coordinating and overseeing the review process

#### **APPLICATION SCORING CARD**

- 1. The applicant has relevant experience in the corresponding research area, within previous projects or within the Euclid Consortium
- 2. The applicant has demonstrated leadership within previous projects in the corresponding research area or within the Euclid Consortium
- 3. The applicant has been active in the Euclid Consortium
- 4. The applicant presented a clear plan for implementation of the Key Project
- 5. The position fits with the other commitments of the candidate as judged from their CV

#### Coordinating and overseeing the review process: common shared schedule of panel meetings

PanelMeetings 🗸 🛛	Ē									
TT PANEL	~	Tr Chair (contact ~ person) ~	Panel members v	¢	O Meeting #	~	<b></b>	Start time 🗸 🗸	TT Zoom link 🗸	Tτ Notes 🗸 🗸
JA		wperciva@uwaterloo.ca	Baccigalupi, Guzzo, Hoekstra, Percival, Hall, Y. Wang, Silvestri, Angulo, Sauvage		Meeting 1	•		18/07/2024 18:00:00	https://uwaterloo.zoor	Notes
JB		ahall@roe.ac.uk	Baccigalupi, Brinchmann, Conselice, Guzzo, Hoekstra, Percival, Hall, Courbin, Weller		Meeting 1	¥		17/07/2024 11:00:00	https://ed-ac-uk.zoom.	Notes
GC		wang@ipac.caltech.edu	Branchini, Percival, Porciani, Y. Wang; Castander & Hall (KP#8 only)		Meeting 1	•		18/07/2024 17:00:00	https://zoom.us/j/678	Notes
WL		hoekstra@strw.leidenuniv.nl	Hoekstra, Hall, Cardone, Nakajima, Starck, de la Torre		Meeting 1	¥		17/07/2024 14:00:00	https://universiteitleide	Notes
SL		gavazzi@iap.fr	Courbin, Grillo, Gavazzi, Wang, Giocoli, Markovic		Meeting 1	•		17/07/2024 17:30:00	https://univ-amu-fr.zoc	Dates TBC
тн		kazuya.koyama@port.ac.uk	Koyama, Silvestri, Camera, Hoekstra, Percival, Cardone		Meeting 1	•		16/07/2024 17:00:00	https://port-ac-uk.zoor	Notes
					Meeting 2	•		18/07/2024 15:00:00	https://port-ac-uk.zoor	Notes
CL		jochen.weller@lmu.de	Weller, Borgani, Hildebrandt, Hoekstra, Biviano,L. Wang, Y. Wang, Meneghetti, Ilic		Meeting 1	•		16/07/2024 16:30:00	https://lmu-munich.zo	Notes
SIM		reangulo@gmail.com	Angulo, Schneider, Pozzetti. Hoekstra, Brinchmann, Borgani		Meeting 1	¥		dd/mm/yyyy xx:xx	Zoom link	Notes
СМВХ		ilic@ijclab.in2p3.fr	llic, Baccigalupi, Lattanzi, Cardone, Monaco, Koyama, Bartlett, Baccigalupi		Meeting 1	¥		dd/mm/yyyy xx:xx	Zoom link	Notes
LU		conselice@manchester.ac.uk	Conselice, Saifollah, Larson		Meeting 1	•		dd/mm/yyyy xx:xx	Zoom link	Notes
MW		bertrand.goldman@isunet.edu	Goldman, XXX, YYY, Huertas-Company		Meeting 1	•		dd/mm/yyyy xx:xx	Zoom link	Notes
SNT		maria.botticella@inaf.it	Botticella, Moriya, Paterson, Conselice		Meeting 1	•		11/07/2024 15:40:00	http://meet.google.cor	Notes
GAEV		Chair (contact person)				Ŧ		dd/mm/yyyy xx:xx	Zoom link	Notes
PU		Chair (contact person)				¥		dd/mm/yyyy xx:xx	Zoom link	Notes