

Status on May, 2021

ROLLING WORK PLAN 2020

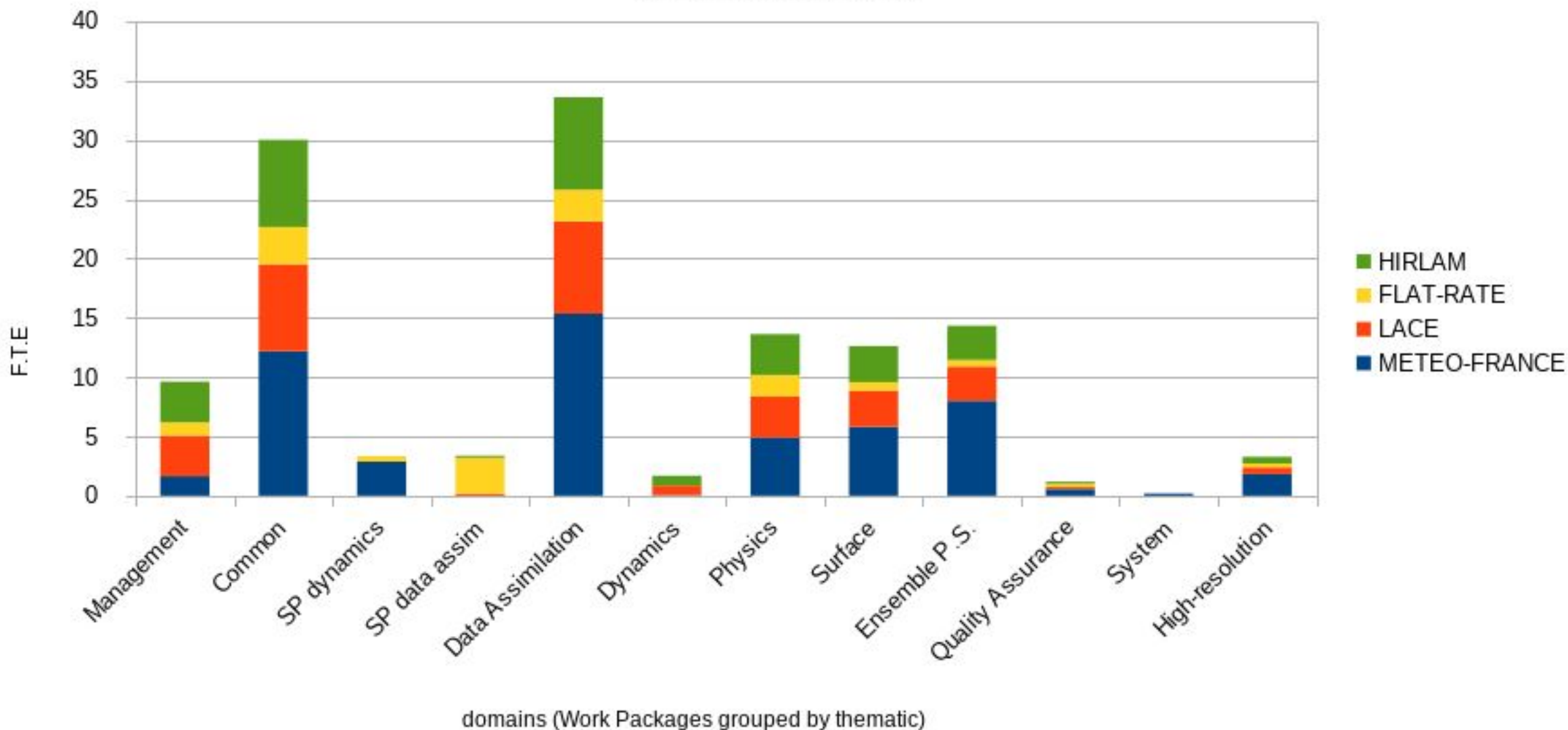
WP NUMBER	WP NAME	MAIN EDITOR(S)	STATUS	comments	Committed manpower	Reported manpower	
Management	MNGT1	Management and ALADIN support activities	Piet Termonia and Patricia Pottier	On-track		46	34
	MNGT2	Management LACE	Martina Tudor	On-track		20	18
	MNGT3	Management HIRLAM	Jeanette Onvlee	On-track		28.75	14
Common	COM1.1	ALADIN Code architect coordination activities	Piet Termonia and Daan Degrauwe	On-track		2	3.25
	COM1.2	HIRLAM Code analyst activities	Jeanette Onvlee & Roel Stappers	On-track		0	5.75
	COM2	Code generation and maintenance	Claude Fischer	On-track		136	113.25
	COM3.1	Maintenance and Partners' implementations of ALADIN system	Maria Derkova	On-track		72	180.25
	COM3.2	Support for maintenance and implementation of Harmonie system on local machines	Daniel Santos	On-track		1	7
	COM3.3	Training (preparation, lectures, attendance)	Jeanette Onvlee, Piet Termonia, Martina Tudor, Claude Fischer	On-track		2	10.5
	COM3.4	Attendance and preparation ASW & EWGLAM			Not initially in RWP2020 but added in RWP2021 and proposed for reporting already in 2020		18.5
Dynamics and scalability	SPDY1	More stable Formulations : Quasi-Elastic (QE) system, new vertical coordinate	Ludovic Auger, Sander Tijm	Delayed or issues	Quasi-Elastic activity is on hold due to no better results and lack of working force. The priority is now on GP/SI, improving the current SP/SI and porting the current codes to new HPC (including the dynamics codes)	4	
	SPDY2	Development of methods for solving the implicit equation in gridpoint space.	Ludovic Auger, Sander Tijm	On-track		27.5	26.75
	SPDY3	Horizontally Explicit Vertically Implicit (HEVI) methods with ALADIN-NH core	Ludovic Auger, Sander Tijm	Delayed or issues	This activity is on hold.	0.5	
	SPDY4	Physics-dynamics interface	Daan Degrauwe, Sander Tijm	On-track		2.5	4.5
	SPDY5	Development of LAM components in Atlas	Daan Degrauwe, Sander Tijm	On-track		7	5
Basic data assimilation setup	SPDA1	Basic data assimilation setup	Piet Termonia, Maria Monteiro, Alena Trojakova	On-track	Definition of baseline DA configuration not started yet (started in 2021)	38	39.5
Data Assimilation	DA1	Further development of 3D-Var (alg. Settings)	Roger Randriamampianina, Benedikt Strajnar, Claude Fischer	On-track		35	42.5
	DA2	Development of flow-dependent algorithms	Roger Randriamampianina and Claude Fischer	On-track		76.75	64
	DA3	Use of existing observations	Roger Randriamampianina, Jean-François Mahfouf	On-track		138.5	133
	DA4	Use of new observations types	Jean-François Mahfouf and Roger Randriamampianina	On-track	Only one task not started (use of SAF/NWC products)	85.5	121.75
	DA5	Development of assimilation setups suited for nowcasting	Xiaohua Yang, Pierre Brousseau, Florian Meier	On-track	Only one task not started (HybridEnVar in very short range tracking of structures)	40.75	37.5

	DA6	Participation in OOPS	Claude Fischer, Roel Stappers, Daan Degrauwe	On-track		26.5	12.5
	DA7	Observation pre-processing and diagnostic tools	Eoin Whelan, Alena Trojaková	On-track		21.5	18.5
Dynamics	DY1	Boundary conditions and nesting	Sander Tijm	Completed		1.5	
	DY2	Time-stepping algorithm	Petra Smolíková	On-track		6	5
	DY3	Vertical discretization	Petra Smolíková	On-track		6	4.25
	DY4	Semi-Lagrangian advection	Petra Smolíková	On-track		0	1.5
Physics parametrizations	PH1	Developments of AROME-France (and ARPEGE) physics	Claude Fischer and Yves Bouteloup	On-track		55.5	47
	PH2	Developments of HARMONIE-AROME physics	Sander Tijm	On-track	Most activity is on track. Microphysics work was delayed as well as the refactoring work to ensure consistency between microphysics and radiation (however the work on aerosols has made progress as expected).	28.75	38.5
	PH3	Developments of ALARO physics	Neva Pristov	On-track	Some activity was delayed but most tasks are on-track.	42	34.5
	PH4	Common 1D MUSC framework for parametrization validation	Sander Tijm, Wim de Rooij and Eric Bazile	On-track		10.75	9.5
	PH5	Model Output Postprocessing Parameters	Maria Derkova	Delayed or issues	Several specific developments have been implemented in CY46T1 & CY47T1 (MF, ZAMG). However, the overhaul of the coordinated inquiry and coordination of new fields development was postponed (this is now mostly taken into account in the 2021-2022 RWP)	31.5	24
Surface analysis and modelling	SU1	Algorithms for surface assimilation	Rafiq Hamdi and Patrick Samuelsson	On-track		25.25	32.75
	SU2	Use of observations in surface assimilation	Stefan Schneider and Patrick Samuelsson	On-track		35.25	28
	SU3	SURFEX: validation of existing options for NWP	Patrick Samuelsson, Samuel Viana and Jan Masek	Delayed or issues	Several tasks have been delayed due to other priorities or postponed stays	70.75	45.5
	SU4	SURFEX: development of model components	Patrick Samuelsson	Not started	Quite a few actions have not started in 2020. We refer to the RWP-2021 for an update on these tasks.	15	11
	SU5	Assess/improve quality of surface characterization	Ekaterina Kourzeneva, Patrick Samuelsson and Rafiq Hamdi	On-track		21	32.25
	SU6	Coupling with sea surface/ocean	Neva Pristov and Patrick Samuelsson	On-track		3	13.5
	E1	Arome-France EPS (PEARO)	Claude Fischer	On-track		74	101.75
	E2.1	Development of convection-permitting ensembles: HarmonEPS - Physics perturbations	Inger-Lise Frogner	Delayed or issues	Issues with SPPT, but SPP on track	24.25	14
	E2.2	Development of convection-permitting ensembles: HarmonEPS - Initial conditions perturbations	Inger-Lise Frogner	Delayed or issues	Will continue in 2021	4	4.25

Ensemble forecasting and predictability	E2.3	Development of convection-permitting ensembles: HarmonEPS - Surface perturbations	Inger-Lise Frogner	Delayed or issues	Perturbations in momentum, heat and moisture flux parameterizations delayed; understanding soil moisture perturbations on track	14.5	21
	E2.4	Development of convection-permitting ensembles: HarmonEPS - Lateral boundary perturbations	Inger-Lise Frogner	Delayed or issues	Will continue in 2021	1.5	0.75
	E2.5	Development of convection-permitting ensembles: HarmonEPS - HarmonEPS system	Inger-Lise Frogner	Delayed or issues	SPP code will be main focus in 2021	3	1.75
	E3	Development, maintenance and operation of convection-permitting ensembles for LACE	Clemens Wastl	Delayed or issues	Optimization of AROME-EPS on new HPC at OMSZ delayed; optimization of other EPS's on track	20.5	15
	E4	Development, maintenance and operation of LAEF	Clemens Wastl	Delayed or issues	Delays due to covid-19 and lack of man-power	16	12
	E6	Ensemble calibration	Inger-Lise Frogner	On-track		6	3.5
Quality assurance and verification	QA1	Development of HARP	Christoph Zingerle	Delayed or issues	The spatial schemes developed and used in e.g. SMHI and DMI (taska QA2.3 and QA2.4) have not yet been implemented in harphub release - work on spatial structures relative to ECMWF has not yet been prioritized.	5.25	16.75
	QA2	Development of new verification methods	Bent Hansen Sass, Christoph Zingerle, Joël Stein, Claude Fischer	Delayed or issues	Use of radar- and satellite data in spatial verification methods is delayd. Development of new metrics relative to ECMWF and or LAM CSC analyses has not yet been prioritized; Implementing the SLX metric in Harp needs finalizing; Addign parametres to Harp score card need more work	21.5	20.75
	QA3	Quality assessment of new cycles and alleviation of model weaknesses	Bent Hansen Sass, Joël Stein, Claude Fischer	On-track		35	33.75
Technical code and system development	SY1	Code optimization	Daniel Santos, Ryad El Khatib	On-track		12.25	6.75
	SY2	Maintenance and development of the Harmonie Reference System	Daniel Santos	On-track	Some delays with the final declaration of CY43H2.1; GRIB2 is a target for CY43H2.2 later on. A Harmonie-Arome test should be implemented in Davař in 2021.	14	16.5
	SY3	Revision of the Harmonie scripting system	Daniel Santos	Delayed or issues		12	1
Towards modelling at (sub-)km resolution	HR1	(Sub)-km configurations and turbulence R&D activity	Sander Tijn, Martina Tudor, Claude Fischer	On-track	Some tasks had to be delayed (ALARO)	39.5	54.75

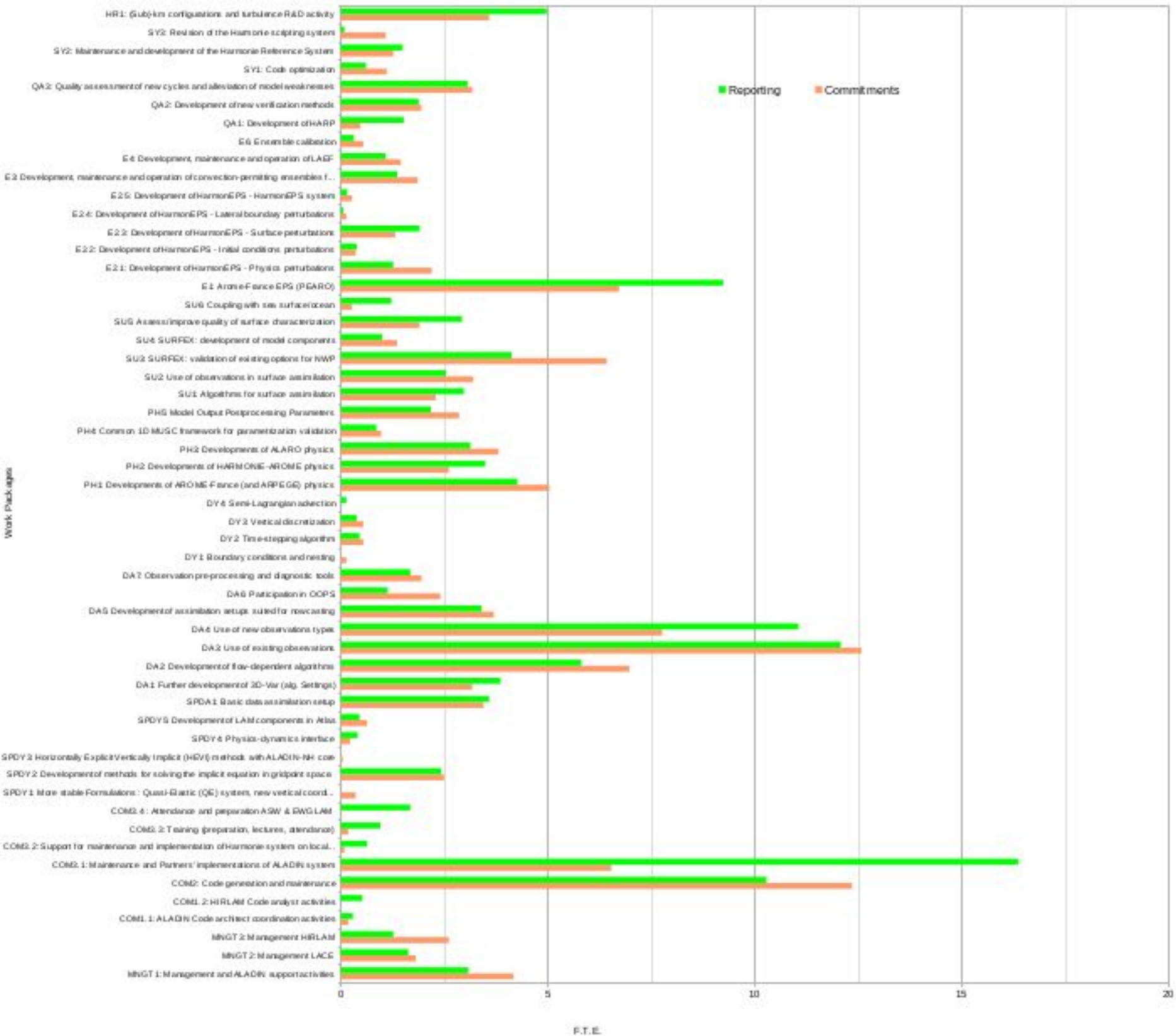
Manpower reported in 2020 in each domain

breakdown by groupings



Manpower (in F.T.E) in 2020 RWP Work Packages

Committed and reported in 2020



Committed and Reported Manpower in Rolling Work Plans 2018-2019-2020

accumulated F.T.E.between 2018 and 2020, by thematic Work Packages

