French S&C involvement

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Collection of information

These slides collect information on French involvement in software & computing, mostly from OTP report, but also from glance or private inputs

From ATLAS computing wiki, ATLAS is organized through three different projects: software, ADAM (dabases & metadata) and computing

Software is separated into several Domains :
   Core, Generation, Simulation, Reconstruction, Derivation, Analysis
whereas OTPs are given in Activities
      Upgrade, Detector Operations, Trigger, Data Operations $\Rightarrow$ (1)
      Software/Computing (SC), Analysis Support (AS) $\Rightarrow$ (2)
$\Rightarrow$ Tables summarizes results in a mixed way :
   Core, Upgrade (Run 4), Detector (1), Reco/Ana (2)

Computing is separated in three classes
   Class 2 : essentially shifts
   Class 3 : expert work + FR-cloud support & management
   Class 4 : Tier 1 & Tier 2

Need to add other contributions such as ACTS/tracking etc. whenever possible that ATLAS-FR members are doing and relevant for ATLAS

Software & computing FTEs involvement

	Software					ADAM	Computing				
	Core	Upgrade	Data/Detector	Reco/Ana	Total [S&C+AS]	Total	C2	C3	C4	Other	Total
APC		0.10	0.40	0.50	0.97 [0.97]		0.05				0.05
CC-IN2P3									3.30		3.30
CPPM	0.10		1.17	0.96	2.23 [1.41]			0.05	0.65		0.70
IJCLab	0.40	1.10		0.30	1.80 [0.70]	0.20	0.16	0.05	0.30	0.40	0.91
IRFU		0.30	0.20		0.50 [0.50]	0.60		0.05	0.75		0.80
L2IT	0.04	1.91	0.40		2.35 [0.51]						
LAPP			0.24	0.05	0.29 [0.05]		0.02	0.02	0.97		1.01
LPC			0.15	0.30	0.45 [0.05]				0.70		0.70
LPNHE		0.20	0.65	0.45	1.30 [0.27]		0.11	0.45	0.75		1.31
LPSC				0.24	0.24 [0.24]	1.95		0.05	0.08		0.13
Total	**0.54**	**3.61**	**3.21**	**2.80**	**10.13 [4.70]**	**2.76**	**0.34**	**0.67**	**7.50**	**0.40**	**8.51**

Software & computing FTEs involvement

- **Computing (8.5 FTE)**
  - 7.5 FTE for FR-T1/2 (Class 4)
  - 0.67 FTE for FR-cloud support & management (Class 3)
  - 0.34 FTE for shifts (Class 2)
    - 0.5 in 2023
  - 0.4 FTE for other (WLCG)

- **Software (10.1 FTE)**
  - 4.7 FTE are labelled as S&C or Analysis Support for ATLAS OTPs
    - 4.2 in 2023
  - 0.5 FTE SW core (0.2 in 2023)
  - 3.6 FTE Upgrade (2.9 in 2023)
  - 3.2 FTE data/detector (2.8 in 2023)
  - 2.8 FTE reco/analysis (3.0 in 2023)

- **ADAM (2.8 FTE)**
  - WG management 0.2 FTE (0.34 in 2023)
  - EventIndex, CondDB ... 0.8 FTE (0.8 in 2023)
  - AMI 1.75 FTE (1.8 in 2023)

$\Rightarrow$ slow erosion of our involvement, **no/not enough new blood**

$\Rightarrow$ several new positions (CR + Univ.) with ML flavour, do not specially reflect in OTPs

These numbers include (in general) contributions to other projects on computing to LCG-FR, DOMA-FR, ESCAPE 2

Software

Software is separated into several Domains :
Core, Generation, Simulation, Reconstruction, Derivation, Analysis
whereas OTPs are given in Activities
Upgrade, Detector Operations, Trigger, Data Operations $\Rightarrow$ (1)
Software/Computing (SC), Analysis Support (AS) $\Rightarrow$ (2)

$\Rightarrow$ Tables summarizes results in a mixed way :
Core, Upgrade (Run 4), Data/Detector (1), Reco/Ana (2)

APC software involvement

Information taken from OTP report
Software involvement = 0.97 FTE, S&C+AS = 0.97 FTE
(Core=0, Upgrade=0.10, Data/Detector=0.40, Ana/Reco=0.50)

Pixel/ITk detector: 0.50 FTE (Upgrade=0.10, Data/Detector=0.50) [S&C+AS=0.50]

Name	OTP	Activity	System	Task	FTE
M. Bomben	C3	Computing/Software	Pixel	Software Development/Maintenance and Physics Performance	0.40
M. Bomben	C3	Computing/Software	Upgrade	ITk - Pixel Offline Software	0.10

Reco/Ana: 0.47 FTE (Ana/Reco=0.47) [S&C+AS=0.47]

Name	OTP	Activity	System	Task	FTE
G. Marchiori	C3	Computing/Software	General Task	Group activities	0.30
T. Li	C2	Computing/Software	General Task	Analysis Release Shift	0.09
G. Marchiori	C2	Computing/Software	General Task	Analysis Release Shift	0.09

Other (ACTS etc ...) : FTE

Name	OTP	Activity	System	Task	FTE

CPPM software involvement (1/2)

Information taken from OTP report

Software involvement = 2.23 FTE, S&C+AS Activity = 1.41 FTE
(Core=0.10, Upgrade=0, Data/Detector=1.17, Reco/Analysis=0.96

LAr: 0.60 FTE (Upgrade=0, Data/Detector=0.60) [S&C+AS=0]

Name	OTP	Activity	System	Task	FTE
G. Aad	C3	Data Preparation	LAr	Reconstruction,EDM,Validation	0.05
J. Toth	C3	Data Preparation	LAr	Reconstruction,EDM,Validation	0.20
E. Knoops	C3	Detector Operation	LAr	LAr online software	0.10
D. Laugier	C3	Detector Operation	LAr	LAr online software	0.20
G. Tolkachev	C3	Detector Operation	LAr	Development and maintenance of DQ algorithms	0.05

Tracking (ID, ITk): 0.37 FTE (Data/Detector=0.37) [S&C=0.31]

Name	OTP	Activity	System	Task	FTE
F. Djama	C3	Computing/Software	Pixel	Software Development/Maintenance and Physics Performance	0.16
T. Strebler	C3	Computing/Software	ID Gen	Common Tracking Software	0.15
T. Strebler	C3	Detector Operation	General Tasks	Convener Tracking CP	0.06

Trigger b-jet: 0.20 FTE (Data/Detector=0.20) [S&C+AS=0]

Name	OTP	Activity	System	Task	FTE
L. Feligioni	C3	Trigger	General Tasks	Bjet Software and performance	0.10
E. Nagy	C3	Trigger	General Tasks	Bjet Software and performance	0.10

CPPM software involvement (2/2)

Other tasks : 1.06 FTE (Core=0.10, Upgrade=0, Reco/Ana=0.96) [S&C+AS=1.06]

Name	OTP	Activity	System	Task	FTE
A. Duperrin	C3	Analysis Support	General Tasks	Internal software	0.08
A. Duperrin	C3	Computing/Software	General Tasks	Reconstruction	0.03
J. Toth	C3	Computing/Software	General Tasks	Validation of software release	0.20
T. Strebler	C3	Computing/Software	General Tasks	Anaysis Model Group	0.30
G. Tolkachev	C3	Computing/Software	General Tasks	Anaysis Model Group	0.03
T. Strebler	C3	Computing/Software	General Tasks	GIT merge request review, Level 1	0.02
T. Strebler	C3	Computing/Software	General Tasks	GIT merge request review, Level 2	0.08
T. Strebler	C3	Computing/Software	General Tasks	Reconstruction	0.16
M. Fujimoto	C3	Computing/Software	General Tasks	Reconstruction	0.06
T. Theveneaux-Pelzer	C3	Analysis Support	General Tasks	General software	0.10

Other (ACTS etc ...) : FTE

Name	OTP	Activity	System	Task	FTE

IJCLab software involvement

Information taken from OTP report
Software involvement = 1.80 FTE (S&C+AS Activity = 0.70 FTE)
(Core=0.40, Upgrade=1.10, Data/Detector=0, Ana/Reco=0.30

Core: 0.40 FTE (Core=0.40) [S&C+AS=0.40]

Name	OTP	Activity	System	Task	FTE
G. Rybkin	C3	Computing/Software	General Tasks	Core services: framework, geometry, EDM etc.	0.30
G. Rybkin	C3	Computing/Software	General Tasks	SPOT	0.02
D. Rousseau	C3	Computing/Software	General Tasks	GIT merge request review, Level 2	0.08

Reconstruction/Analysis: 0.30 FTE (Reco/Ana=0.30) [S&C+AS=0.30]

Name	OTP	Activity	System	Task	FTE
A. Schaffer	C3	Computing/Software	General Tasks	Analysis Model Group	0.30

Other (ACTS etc ...) : 1.10 FTE

Name	OTP	Activity	System	Task	FTE
C. Allaire		ACTS		ML for tracking	0.20
A. Maury		ACTS		ML for tracking	0.40
D. Rousseau		ACTS		ML for tracking	0.50

IRFU software involvement

Information taken from [OTP report](#)
Software involvement = 0.50 FTE (S&C+AS Activity = 0.50 FTE)
(Core=0, Upgrade=0.30, Data/Detector=0.20, Ana/Reco=0)

Muon detector: 0.50 FTE (Upgrade=0.30, Data/Detector=0.20) [S&C+AS=0.50]

Name	OTP	Activity	System	Task	FTE
P-F. Giraud	C3	Computing/Software	Muon	Muon detector performance	0.20
A. Formica	C3	Computing/Software	Muon	Upgrade Muon Software	0.30

Other (ACTS etc ...) : FTE

Name	OTP	Activity	System	Task	FTE

L2IT software involvement (1/2)

Information taken from [OTP report](#)
Software involvement = 2.35 FTE (S&C+AS Activity = 0.51 FTE)
(Core=0.04, Upgrade=1.91, Data/Detector=0.40, Ana/Reco=0)

Tracking: 0.40 FTE (Upgrade=0, Data/Detector=0.40, Reco/Ana=0) [S&C+AS=0.40]

Name	OTP	Activity	System	Task	FTE
A. Vallier	C3	Computing/Software	ID Gen	Common Tracking Software Support	0.40

ITK: 0.11 FTE (Upgrade=0.11, Reco/Ana=0) [S&C+AS=0.11]

Name	OTP	Activity	System	Task	FTE
A. Vallier	C3	Computing/Software	Upgrade	ITK-Performance Studies	0.06
J. Manjarres	C3	Computing/Software	Upgrade	ITK-Performance Studies	0.05

General Tasks: 0.04 FTE (Core=0.04) [S&C+AS=0.04]

Name	OTP	Activity	System	Task	FTE
J. Manjarres	C3	Computing/Software	General Task	GIT merge request review, Level 1	0.04

L2IT software involvement (2/2)

Other (ACTS etc ...) : 1.80 TE (Upgrade=1.80)

Name	OTP	Activity	System	Task	FTE
J. Stark		Computing/Software	Upgrade	Itk software and tracking	0.40
S. Caillou		Computing/Software	Upgrade	Itk software and tracking	1.00
H. Torres		Computing/Software	Upgrade	Itk software and tracking	0.20
C. Collard		Computing/Software	Upgrade	Itk software and tracking	0.20

LAPP software involvement

Information taken from OTP report

Software involvement = 0.29 FTE, S&C+AS Activity = 0.05 FTE
(Core=0, Upgrade=0, Data/Detector=0.24, Ana/Reco=0.05)

LAr detector: 0.57 FTE (Data/Detector=0.57) [S&C+AS=0]

Name	OTP	Activity	System	Task	FTE
O. Arnaez	C3	Detector Operation	LAr	LAr online software	0.50
F. Bellachia	C3	Detector Operation	LAr	LAr online software	0.07

Reco/Ana: 0.05 FTE (Upgrade=0., Reco/Ana=0.05) [S&C+AS=0.05]

Name	OTP	Activity	System	Task	FTE
E. Sauvan	C3	Computing/Software	General Tasks	Group Activities	0.05

Other (ACTS etc ...) : FTE

Name	OTP	Activity	System	Task	FTE
J. Léveque		ACTS		ML for tracking	

LPC software involvement

Information taken from OTP report
Software involvement = 0.45 FTE (S&C+AS Activity = 0.05 FTE)
(Core=0, Upgrade=0, Data/Detector=0.30, Ana/Reco=0.15)

Tile: 0.30 FTE (Data/Detector=0.30) [S&C+AS=0]

Name	OTP	Activity	System	Task	FTE
S. Binet	X	Computing/Sofware	TileCal	Monitoring and DQ Tools Developmentt	0.30

Reconstruction/Analysis : 0.15 FTE (Ana/Reco=0.15) [S&C+AS=0.22]

Name	OTP	Activity	System	Task	FTE
L. Copre	C3	Analysis Support	General Tasks	Generator Software	0.05
O. Perrin	X	Analysis support	"HH multilepton analysis group"	Analysis group framework & ntuple production	0.10

Other (ACTS etc ...) : FTE

Name	OTP	Activity	System	Task	FTE

LPNHE software involvement (1/2)

Information taken from OTP report
Software involvement = 1.30 FTE S&C+AS = 0.27 FTE)
(Core=0, Upgrade=0.20, Data/Detector=0.65, Ana/Reco=0.45)

Itk: 0.20 FTE (Upgrade=0.20) [S&C+AS=0]

Name	OTP	Activity	System	Task	FTE
F. Derue	C3	Detector Operation	General Task	Phase-II ITk Pixels (Local DB)	0.20

Pixel detector: 0.12 FTE (Data/Detector=0.12) [S&C+AS=0.12]

Name	OTP	Activity	System	Task	FTE
G. Calderini	C3	Computing/Software	Pixel	Software Development/Maintenance and Physics Performance	0.12

LPNHE software involvement (2/2)

Reco/Ana: 0.68 FTE (Data/Detector=0.53, Reco/Ana=0.15) [S&C+AS=0.15]

Name	OTP	Activity	System	Task	FTE
B. Malaescu	C3	Computing/Software	General Task	Analysis Model Group	0.15
B. Laforge	C3	Data Preparation	General Task	Offline DQ Monitoring Software & Debugging – Egamma,Jet,Calo	0.03
E. Purcino De Souza	C3	Data Preparation	General Task	Offline DQ Monitoring Software & Debugging -- Egamma	0.05
B. Laforge	C3	Trigger	General Task	Egamma Software and Performance	0.30
E. Purcino De Souza	C3	Trigger	General Task	Egamma Software and Performance	0.15

Other (ACTS etc ...) : 0.3 FTE

Name	OTP	Activity	System	Task	FTE
A. Butter		ML		Software for ML	0.3

LPSC software involvement

Information taken from OTP report
Software involvement = 0.24 FTE (S&C+AS Activity = 0.24 FTE)
(Core=0, Upgrade=0, Data/Detector=0, Ana/Reco=0.24)

Reconstruction/Analysis: 0.24 FTE (Reco/Ana=0.24) [S&C+AS=0.24]

Name	OTP	Activity	System	Task	FTE
P-A. Delsart	C3	Computing/Software	General Tasks	Reconstruction	0.14
J-B. de Vivie	C3	Computing/Software	General Tasks	Reconstruction	0.10

Other (ACTS etc ...) : FTE

Name	OTP	Activity	System	Task	FTE

Databases and Metadata (ADAM)

IJCLab ADAM involvement

Information taken from [OTP report](#)
ADAM involvement = 0.20 FTE

ADAM: 0.20 FTE

Name	OTP	Activity	System	Task	FTE
G. Rybkin	C3	Computing/Software	General Tasks	TAG/EI and conditions/metadata database development	0.20

IRFU ADAM involvement

Information taken from [OTP report](#)
ADAM involvement = 0.60 FTE

ADAM: 0.60 FTE

Name	OTP	Activity	System	Task	FTE
A. Formica	C3	Computing/Software	General Tasks	Database Deployment and Operations	0.20
A. Formica	C3	Computing/Software	General Tasks	TAG/EI and conditions/metadata database development	0.40

LPSC ADAM involvement

Information taken from [OTP report](#)

ADAM involvement = 1.95 FTE

ADAM: 1.95 FTE

Name	OTP	Activity	System	Task	FTE
P-A. Delsart	C3	Computing/Software	General Tasks	ADAM Group Coordination	0.20
P-A. Delsart	C3	Computing/Software	General Tasks	Dataset-level metadata catalogs and infrastructure (AMI)	0.10
J. Fulachier	C3	Computing/Software	General Tasks	Dataset-level metadata catalogs and infrastructure (AMI)	0.50
F. Lambert	C3	Computing/Software	General Tasks	Dataset-level metadata catalogs and infrastructure (AMI)	0.65
J. Odier	C3	Computing/Software	General Tasks	Dataset-level metadata catalogs and infrastructure (AMI)	0.50

Computing

Computing is separated in three classes
Class 2 : essentially shifts
Class 3 : expert work + FR-cloud support & management
Class 4 : Tier 1 & Tier 2

APC computing involvement

Information taken from [OTP report](#)
Total computing involvement = 1.52 FTE (0.17 C2, 0.45 C3, 0.90 C4)
(also LCG-FR)

Class 2 : 0.05 FTE

Name	OTP	Activity	System	Task	FTE
Gregorio Bernardi	C2	Computing/Software	General Tasks	ADCoS Senior shifts	0.07

Class 3 : 0 FTE

Name	OTP	Activity	System	Task	FTE

Class 4 : 0 FTE

Name	OTP	Activity	System	Task	FTE

CC-IN2P3 computing involvement

Information taken from [OTP report](#)
Total computing involvement = 3.30 FTE (3.30 C4)

Class 4 : 3.30 FTE

Name	OTP	Activity	System	Task	FTE
Institute	C4	Computing/Software	General Tasks	FR Tier-1	3.30

CPPM computing involvement

Information taken from [OTP report](#)
Total computing involvement = 0.70 FTE (0 C2, 0.05 C3, 0.65 C4)

Class 2 : 0 FTE

Name	OTP	Activity	System	Task	FTE

Class 3 : 0.05 FTE

Name	OTP	Activity	System	Task	FTE
A. Duperrin	C3	Computing/Software	General Tasks	Cloud Operation & Management / cloud manag.	0.04
T. Theveneaux-Pelzer	C3	Computing/Software	General Tasks	Cloud Operation & Management / cloud manag.	0.01

Class 4 : 0.65 FTE

Name	OTP	Activity	System	Task	FTE
Institute	C4	Computing/Software	General Tasks	FR CPPM Marseille	0.20
E. Knoops	C4	Computing/Software	General Tasks	FR CPPM Marseille	0.40
A. Duperrin	C4	Computing/Software	General Tasks	FR CPPM Marseille	0.05

IJCLab computing involvement

Information taken from [OTP report](#)

Total computing involvement = 0.91 FTE (0.16 C2, 0.05 C3, 0.30 C4, 0.40 Other)

Class 2 : 0.23 FTE

Name	OTP	Activity	System	Task	FTE
L. Duflot	C2	Computing/Software	General Tasks	Distributed Analysis Shifts 1st level	0.16

Class 3 : 0.05 FTE

Name	OTP	Activity	System	Task	FTE
L. Duflot	C3	Computing/Software	General Tasks	Cloud Operation & Management / cloud manag.	0.05

Class 4 : 0.30 FTE

Name	OTP	Activity	System	Task	FTE
Institute	C4	Computing/Software	General Tasks	FR GRIF, Orsay	0.30

Other : 0.40 FTE

Name	OTP	Activity	System	Task	FTE
L. Duflot		Computing/Software	General Tasks	WLCG/LCG-FR	0.40

IRFU computing involvement

Information taken from [OTP report](#)
Total computing involvement = 0.80 FTE (0 C2, 0.05 C3, 0.75 C4)

Class 2 : 0 FTE

Name	OTP	Activity	System	Task	FTE

Class 3 : 0.05 FTE

Name	OTP	Activity	System	Task	FTE
E. Chapon	C3	Computing/Software	General Tasks	Cloud Operation & Management / cloud manag.	0.05

Class 4 : 0.75 FTE

Name	OTP	Activity	System	Task	FTE
Institute	C4	Computing/Software	General Tasks	FR GRIF, Saclay	0.45
A. Bailly-Reyre	C4	Computing/Software	General Tasks	FR GRIF, Saclay	0.25
E. Chapon	C4	Computing/Software	General Tasks	FR GRIF, Saclay	0.05

LAPP computing involvement

Information taken from OTP report
Total computing involvement = 1.01 FTE (0.02 C2, 0.05 C2, 0.97 C4)

Class 2 : 0.02 FTE

Name	OTP	Activity	System	Task	FTE
J. Little	C2	Computing/Software	General Tasks	ADCoS Trainee shifts	0.01
J. Little	C2	Computing/Software	General Tasks	ADCoS Senior shifts	0.01

Class 3 : 0.02 FTE

Name	OTP	Activity	System	Task	FTE
S. Jézéquel	C3	Computing/Software	General Tasks	Cloud Operation & Management / cloud manag.	0.02

Class 4 : 0.97 FTE

Name	OTP	Activity	System	Task	FTE
Institute	C4	Computing/Software	General Tasks	FR LAPP, Annecy	0.90
S. Jézéquel	C4	Computing/Software	General Tasks	FR LAPP, Annecy	0.02
F. Chollet	C4	Computing/Software	General Tasks	FR LAPP, Annecy	0.05

LPC computing involvement

Information taken from OTP report
Total computing involvement = 0.70 FTE (0 C2, 0 C3, 0.70 C4)
(also LCG-FR)

Class 2 : 0 FTE

Name	OTP	Activity	System	Task	FTE

Class 3 : 0 FTE

Name	OTP	Activity	System	Task	FTE

Class 4 : 0.70 FTE

Name	OTP	Activity	System	Task	FTE
Institute	C4	Computing/Software	General Tasks	FR LPC, Clermont	0.70

LPNHE computing involvement

Information taken from [OTP report](#)
Total computing involvement = 1.31 FTE (0.11 C2, 0.45 C3, 0.75 C4)
(also LCG-FR)

Class 2 : 0.11 FTE

Name	OTP	Activity	System	Task	FTE
Sophie Trincaz-Duvoid	C2	Computing/Software	General Tasks	ADCoS Senior shifts	0.07
Mélissa Ridel	C2	Computing/Software	General Tasks	ADCoS Senior shifts	0.04

Class 3 : 0.45 FTE

Name	OTP	Activity	System	Task	FTE
Frédéric Derue	C3	Computing/Software	General Tasks	Cloud Operation & Management / Cloud squad	0.45

Class 4 : 0.75 FTE

Name	OTP	Activity	System	Task	FTE
Aurélien Bailly-Reyre	C4	Computing/Software	General Tasks	FR GRIF, Paris	0.15
Frédéric Derue	C4	Computing/Software	General Tasks	FR GRIF, Paris	0.10
Victor Mendoza	C4	Computing/Software	General Tasks	FR GRIF, Paris	0.50

LPSC computing involvement

Information taken from [OTP report](#)

Total computing involvement = 0.13 FTE (0 C2, 0.05 C3, 0.08 C4)

NB : end of the LPSC Tier 2 end of January 2023 !

Class 2 : 0 FTE

Name	OTP	Activity	System	Task	FTE

Class 3 : 0.05 FTE

Name	OTP	Activity	System	Task	FTE
P-A Delsart	C3	Computing/Software	General Tasks	Cloud Operation & Management	0.05

Class 4 : 0.08 FTE

Name	OTP	Activity	System	Task	FTE
P-A Delsart	C4	Computing/Software	General Tasks	FR LPSC, Grenoble	0.02
Institute	C4	Computing/Software	General Tasks	FR LPSC, Grenoble	0.06