

SDC-FR

Status of PFs development

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SDC-FR - Technical coordination

- SGS SRR status :
 - Deliverables
 - SDC-FR status
 - SGS-FR (OU + SDC FR) status
- SGS PDR objectives for PFs
- SGS-FR strategy for PFs development
- Reference SGS-FR process for PFs development
- PFs development : from SGS SRR to SGS PDR
- Short terms priorities

SGS SRR : deliverables (reminder)



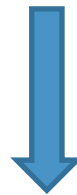
- List of PFs related deliverables for SGS SRR requiring technical involvement of primary SDCs :
 - PF Requirements Specification Document (PF RSD) :
 - 1 per PF
 - Custodian : OU
 - Contributor : primary SDC
 - PF Validation Plan :
 - 1 per PF
 - Custodian : OU
 - Contributor : primary SDC
 - SDC-XX Development Plan :
 - 1 per primary SDC
 - Custodian : primary SDC
 - Contributors : OUs + auxiliary SDCs
 - SDC-XX Work Package Breakdown Document (SDC-XX WPD) :
 - 1 per SDC
 - Custodian : primary SDC
 - Contributors : auxiliary SDCs

SGS SRR : SDC-FR status

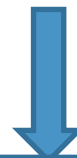


- VIS PF :
 - RSD : stable - reviewed
 - Validation Plan : stable - reviewed
- SPE PF :
 - RSD : stable - reviewed
 - Validation Plan : under work by OU - still to be reviewed
- EXT PF :
 - Specific context : recent involvement of France – all SRR deliverable documents currently written by Germany and Netherlands
 - RSD : under review – prone to change after the SRR
 - Validation Plan : still to be reviewed – prone to change after the SRR
- LE3 PF :
 - RSD : under work by OU - reviewed
 - Validation Plan : under work by OU - reviewed
- SDC-FR Development Plan :
 - Common directives to all PFs : complete, reviewed and stable
 - VIS contribution : complete, reviewed and stable
 - SPE contribution : complete, reviewed and stable
 - EXT contribution : to be limited to the description of the current involvement of France
 - LE3 contribution : under elaboration

- SGS-FR (OU + SDC FR) SRR activities status :
 - almost finished on VIS and SPE ✓
 - under finalization on LE3 ✓
 - Increasing involvement on EXT, in line with France commitments ✓



SGS SRR can be (almost) considered as behind us



SGS PDR becomes our next target

SGS PDR objectives for PFs (1/2)



- From « ECSGS - Best Practices and How-To for OUs and SDCs » - v1.1 :
 - §7.2.4 :
 - All PFs in Maturity Level 2A => see next slide
 - Deadline = May 2016
 - §7.2.6 :
 - PF RSD document update (if necessary)
 - PF Validation Plan update (if necessary)
 - PF Software Design Document (1st version)
 - PF Validation Test Specification Document (1st version)
 - PF Validation Report (1st version)
 - PF Performances and Sizing Budget (1st version)
 - PF User's Manual (1st version)
- From « SGS Integration, Verification and Validation Plan » - v1.4.1, §5.7.1 :
 - Scientific challenge #2 (SIM/VIS/NIR/SIR) successfully executed on SDC-PROD environment :
 - formally applies to SIM/VIS/NIR/SIR
 - Could be extended to other PFs if needed
 - Note : scientific challenge #1 (SIM) should be passed at the SRR

SGS PDR objectives for PFs (2/2)

SGS
SRR



Maturity level (ML)	Status of the Processing Function code vs the targeted production code	V&V level of the code	Compliance level of the code vs coding rules
0	Algorithm defined and/or identified	Algorithm assessed by paper analysis and/or simulation on preliminary test data	None
1	Algorithm code implemented in a high level language in an OU specific environment	(1A) Algorithm code validated in an OU specific environment with a set of OU internal test data	None
		(1B) Algorithm code validated in an OU specific environment with a set of representative test data	
2	Algorithm code implemented in C++ and/or Python, hosted by CODEEN, SGS DM compliant and IAL interface compliant. Local use of standalone libraries punctually admitted.	(2A) Algorithm code validated in the CODEEN environment with a local copy of representative test data (1)	"Prototype" profile
		(2B) Algorithm code validated in a partial SDC-PROD environment with representative test data (managed by EAS) and dedicated V&V tools	
3	Algorithm code based upon the Euclid reference libraries, and potentially official 3 rd party libraries	Algorithm code hosted by CODEEN and validated in the complete SDC-PROD environment with an extended set of representative test data and dedicated V&V tools(2)	(3A) "Development" profile
			(3B) "Production" profile

SGS
PDR

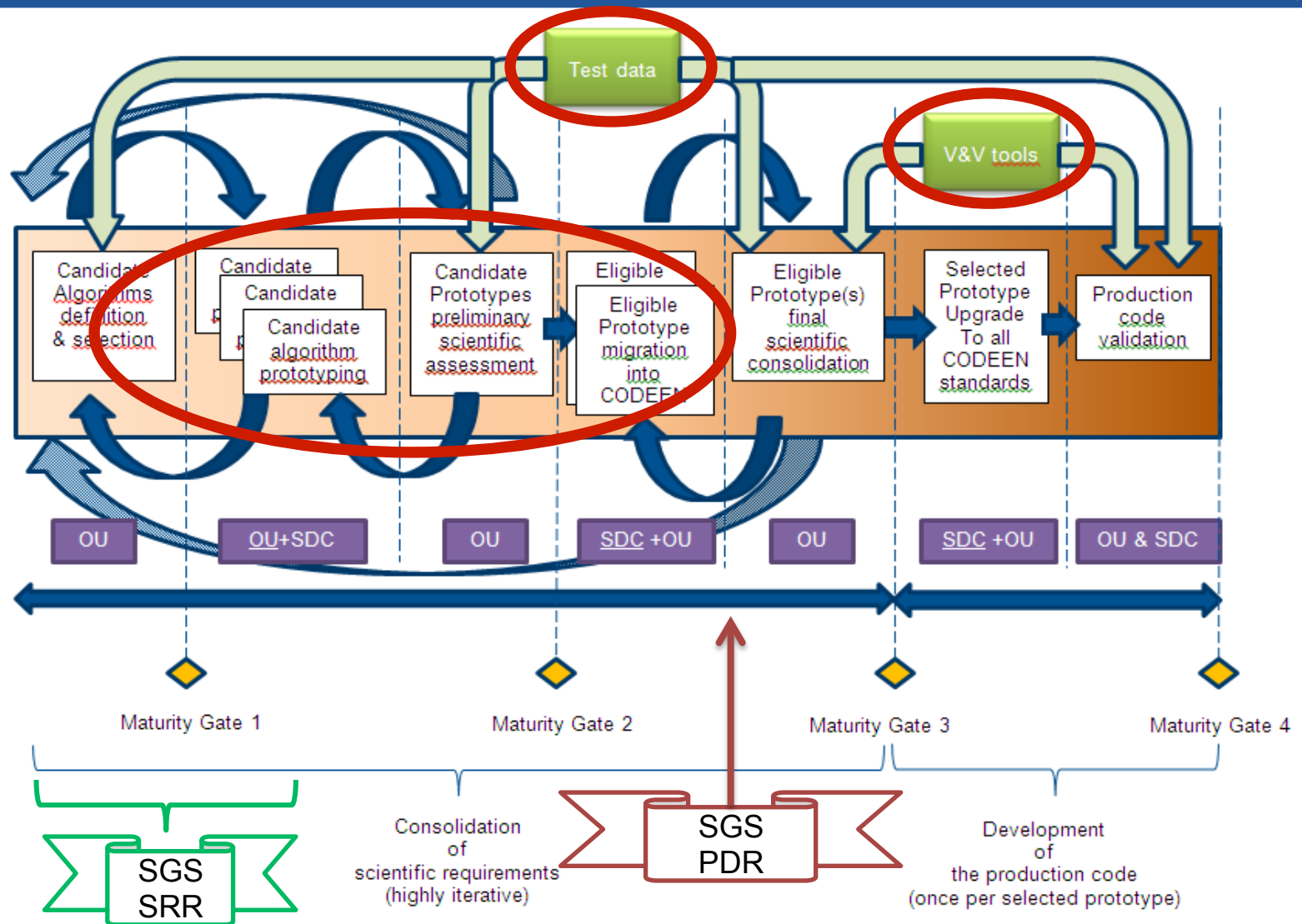


Source : ECSGS - Best Practices and How-To for OUs and SDCs - v1.1, §7.2.1

- Iterative and incremental development process :
 - covering all OU and SDC activities from early studies to the delivery of the production code
 - aiming at :
 - smoothly increasing the Maturity Level of the code
 - early working PFs sizing and performances aspects
- Integrated OU/SDC Teams, aiming at :
 - smoothing the transitions between OU and SDC activities
 - Managing the PF maturity ramp-up and the PF releases deliveries to SDC-PROD and SGS integration activities

SGS-FR development process applies to all OUs and SDCs teams involved in the development of PFs under France responsibility : VIS, SPE, EXT and LE3

Reference SGS-FR process for PFs development



Source : SDC-FR Development Plan – V0.6 , §6.1.1

- Current status of PFs (SGS SRR) : all PFs in Maturity Level 0 or « almost 1A »
 - Iterative and incremental development process for PFs development targetting :
 - **Consolidation of algorithms trade-offs, including sizing and performances aspects at runtime**
 - **Progressive consolidation of the detailed definition of the algorithms**
 - **Progressive optimization of algorithms implementation**
 - **Progressive extension of the validation coverage**
 - **Progressive migration into the CODEEN environment**
 - Progressive extension the verification and PA/QA coverage, according to SGS PO directives (*)
 - Progressive extension of the formalisation effort (documentation), according to SGS PO directives (*)
- ⇒ Progressive increase of the PFs Maturity Level, up to Maturity Level 2A

(*) Reference : ECSGS - Best Practices and How-To for OUs and SDCs - v1.1, §7.2.7

- In the frame of the new conventions for the next B2/C1 development phase :
 - consolidation of the technical perimeter of the WPs
 - consolidation of the SDC-FR-DEV staffing
 - ... vs the reference PFs development roadmaps presented in :
 - SDC-FR Development Plan (VIS, SPE, *EXT*, LE3)
 - SDC-XX Development Plans (LE1 VIS, **SIM**, SIR, MER)
- Organize kick-off meetings with Integrated OU/SDC Teams of VIS, SPE and LE3, in order to formally launch the next PFs development phase
- Increase the involvement of France in EXT activities
- Precise SDC-FR role in VIS IOT hosting

Thank you for your attention