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| **PROJECT:** FAQAS **PHASE:** - | **WP:** WP1 |
| **WP Title:** Analysis and survey of mutation testing  **Company:** SnT  **WP Manager:** Fabrizio Pastore  **Start Event:** KO **Planned Date:** T0  **End Event:** TM1 **Planned Date:** T0+5M | **Sheet** 1 **of** 6  **Issue Ref** 1  **Issue Date** 2019.07.23 |
| **Inputs:**   * SoW   **Tasks:**   * WP1.1: Analysis and survey of mutation testing approaches [R1-1] with documented outcomes [R1-2]. *Leader: SnT. Participants: None.*   **Outputs:**   * D1: Analysis and survey of mutation testing |  |

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| **PROJECT:** FAQAS **PHASE:** - | **WP:** WP2 |
| **WP Title:** Study of mutation testing applicability to space software  **Company:** SnT  **WP Manager:** Fabrizio Pastore  **Start Event:** TM1 **Planned Date:** T0+5M  **End Event:** TM2 **Planned Date:** T0+10M | **Sheet** 2 **of** 6  **Issue Ref** 1  **IssueDate** 2019.07.23 |
| **Inputs:**   * D1   **Tasks:**   * WP2.1: Process and case studies. * WP2.1.1: Prototype the mutation testing process [R2-1.a-f]. *Leader: SnT. Participants: None.* * WP2.1.2: Identify the case studies (opensource case studies) [R2-2.a] [R2-2.b] [R2-2.c] [R2-2.d] [R2-2.f]. Leader: SnT. Participants: GSL, LXS. * WP2.1.3: Identify the case studies (GSL case studies) [R2-2.a] [R2-2.b] [R2-2.c] [R2-2.d] [R2-2.f]. Leader: GSL. Participants: SnT. * WP2.1.4: Identify the case studies (LXS case studies) [R2-2.a] [R2-2.b] [R2-2.c] [R2-2.d] [R2-2.f]. Leader: LXS. Participants: SnT. * WP2.2: Empirical evaluation of selected techniques * WP2.2.1: Evaluate mutation testing empirically [R2-3.a-e]. *Leader: SnT. Participants: GSL, LXS.* * WP2.2.2: Define a simplified mutation testing tool chain [R2-2.e] [R2-4]. *Leader: SnT. Participants: None.*   **Outputs:**   * D2: Study of mutation testing applicability to space software [R2-5] * SW1: Benchmark including case studies and documentation. |  |

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| **PROJECT:** FAQAS **PHASE:** - | **WP:** WP3 |
| **WP Title:** Development of the mutation testing framework  **Company:** SnT  **WP Manager:** Fabrizio Pastore  **Start Event:** TM2 **Planned Date:** T0+10M  **End Event:** TM3 **Planned Date:** T0+20M | **Sheet** 3 **of** 6  **Issue Ref** 1  **IssueDate** 2019.07.23 |
| **Inputs:**   * D2 * SW1   **Tasks:**   * WP3.1: Develop the initial prototype * WP3.1.1: Develop the mutation testing toolset [R3-1.a]. *Leader: SnT. Participants: None.* * WP3.1.2: Develop the test case generation toolset [R3-1.b]. *Leader: SnT. Participants: None.* * WP3.2: Develop the complete prototype * WP3.2.1: Develop the mutation testing toolset [R3-1.a]. *Leader: SnT. Participants: None.* * WP3.2.2: Develop the test case generation toolset [R3-1.b]. *Leader: SnT. Participants: None.* * WP3.3: Validation of the toolset [R3-1.c]. *Leader: SnT. Participants: GSL, LXS.* * WP3.3.1: Validation of the toolset on GSL case studies [R3-1.c]. *Leader: GSL. Participants: SnT.* * WP3.3.2: Validation of the toolset on LXS case studies [R3-1.c]. *Leader: LXS. Participants: SnT.* * WP3.3.3: Validation of the toolset on opensource case studies [R3-1.c]. *Leader: SnT. Participants: None.*   **Outputs:**   * D3: Toolset documentation to conform with ECSS standards [R3-2] [R3-4]. * SW2: First version of the FAQAS framework released for TR4. Includes mutation testing and test case generation features. * SW2: The FAQAS framework. * D4: Validation of the toolset [R3-4]. |  |

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| **PROJECT:** FAQAS **PHASE:** - | **WP:** WP4 |
| **WP Title:** Evaluation of the mutation testing process and methodology definition  **Company:** SnT  **WP Manager:** Fabrizio Pastore  **Start Event:** TM3 **Planned Date:** T0+20M  **End Event:** TM4 **Planned Date:** T0+24M | **Sheet** 4 **of** 6  **Issue Ref** 1  **IssueDate** 2019.07.23 |
| **Inputs:**   * D1 * D2 * D3 * D4   **Tasks:**   * WP4.1: Definition of the mutation testing methodology [R4-2.a] [R4-2.b]. *Leader: SnT. Participants: None.* * WP4.2: Evaluation of the mutation testing methodology and the FAQAS framework [R4-1]. *Leader: SnT. Participants: GSL,LXS.* * WP4.2.1: Evaluation of the mutation testing methodology and the FAQAS framework on GSL case studies [R4-1]. *Leader: GSL. Participants: SnT.* * WP4.2.2: Evaluation of the mutation testing methodology and the FAQAS framework on LXS case studies [R4-1]. *Leader: LXS. Participants: SnT.* * WP4.2.3: Evaluation of the mutation testing methodology and the FAQAS framework on opensource case studies [R4-1]. *Leader: SnT. Participants: None.* * WP4.3: Dissemination [R4-2.c] [R4-3] [R4-4]. *Leader: SnT. Participants: GSL, LXS.*   **Outputs:**   * D5: Evaluation of the mutation testing process and methodology definition [R4-5] [R4-6]. * Generic GSTP work package: TDP, AB, BR, TAS, FP, ESR, FR, CCD, PWP [R4-5] [R4-6]. |  |

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| **PROJECT:** FAQAS **PHASE:** - | **WP:** WP5 |
| **WP Title:** Maintenance and improvement of the toolset  **Company:** SnT  **WP Manager:** Fabrizio Pastore  **Start Event:** TM5 **Planned Date:** T0+24M  **End Event:** TM6 **Planned Date:** T0+36M | **Sheet** 5 **of** 6  **Issue Ref** 1  **IssueDate** 2019.07.23 |
| **Inputs:**   * SW2   **Tasks:**   * WP5.1: Maintenance of the FAQAS framework [R5-1] [R5-2]. *Leader: SnT. Participants: None.* * WP5.2: User training [R5-3]. *Leader: SnT. Participants: None.*   **Outputs:**   * D6: Maintenance and improvement of the toolset [R5-4] * Updated SW2: FAQAS framework after maintenance. [R5-5] |  |

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| **PROJECT:** FAQAS **PHASE:** - | **WP:** WP6 |
| **WP Title:** Activity management  **Company:** SnT  **WP Manager:** Fabrizio Pastore  **Start Event:** KO **Planned Date:** T0+0M  **End Event:** TM6 **Planned Date:** T0+36M | **Sheet** 6 **of** 6  **Issue Ref** 1  **IssueDate** 2019.07.23 |
| **Inputs:**   * SoW   **Tasks:**   * WP6.1 Coordination of the activities and Team management. * WP6.2 Interface to ESA and sub-contractor management. * WP6.3 Project plan setup and maintenance. * WP6.4 Supervision and management of Action Items. * WP6.5 Organization of meetings and teleconferences. * WP6.6 Documentation management and progress reporting   **Outputs:** None |  |