SLR on SPL Scoping - Supplementary Data

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1. Complementary Material

Table 1: Scoping Concept and Activities Relation

Concept	Description	Activities
Architecture Definition	Define a high-level structure to be used for all products [1].	PuLSE B.3 / Kishi *et al.* 5 / Her *et al.* / DRAMA 4 / PLiCs 3 / RiPLE D.3 / Bartholdt and Becker / Pro-PD D.1 / ARF-E B.2 / Sierszecki *et al.* 3 / ISPL A.5
Scoping Metamodel	Make use of a metamodel to define the structure and constraints of SPL scoping	CADSE / PLiCs 1 / Cavalcanti *et al.* / VB Portfolio Opt. 7
Cost Models	Define/Use mathematical models for calculating costs related with the SPL development [2].	Park *et al.* 5 / FARE D.2 / DRAMA 2 and 3 / VB Portfolio Opt. 3 / Gillain *et al.* 1 / Cruz *et al.* 1, 2 and 3 / PPSMS C.1 and C.2 / Karimpour and Ruhe 1 / Neto *et al.* 1, 2 and 4
Customer Needs	Understand and consider the needs of customers when scoping the SPL [3].	PuLSE A.2 and B.1 / Noor *et al.* A.1 / DRAMA 3.1 / Planning Game in SPLE A.1 / PLiCs 1 / RiPLE A.1 and C.1 / VB Portfolio Opt. 2 / Bartholdt and Becker / Gillain *et al.* 1 / Cruz *et al.* 2 / Nobauer *et al.* 3 / SPLBench A.1 and A.2 / PPSMS A.1 / Karimpour and Ruhe 1 / ISPL A.1 and A.3 / CoMeS 1 and 8
Metrics Definition	Define metrics to be used for measuring SPL scoping tasks or artifacts [2]	Park *et al.* 5 / Her *et al.* / Noor *et al.* 6 / COPE+ B.1 / Cavalcanti *et al.* / RiPLE D.1 and D2 / Cruz *et al.* 2 and 3 / SPLBench 2 / PPSMS A.1 / Karimpour and Ruhe 1 / Neto *et al.* 2
Market Analysis	Analyze the market to understand the domain and identify competitor products	PuLSE A.2 / FARE A.1 and E.2 / DRAMA 1 / RiPLE A.2 / VB Portfolio Opt. 4 / Gillain *et al.* 1 / PPSMS A.1 / Karimpour and Ruhe 1 / ISPL A.1 / CoMeS 1 / Small-SPL A.1

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Table 1: Continued

Concept	Description	Activities
Product Roadmap	Maps the *journey* of how and when a product addresses business objectives [4]	PuLSE A.5 / Noor *et al.* 5 / CAVE C.2 / PLEvo-Scoping D.4 / RiPLE C.5 and D.3 / ISPL A.2 / CoMeS 5
Candidates Analysis	Analyze candidate products or assets to be reused by the SPL [5]	PuLSE A.5 and B.2 / Kishi *et al.* 3, 4, 5, 6 and 7 / COPE+ C.1 / RiPLE C.4 and C.5 / VB Portfolio Opt. 1 and 5 / Acher *et al.* / Cruz *et al.* 4 / PPSMS A.2 and B.1 / Ianzen *et al.* A.2 and B.2 / Neto *et al.* 3 and 4
Evolution Planning	Plan the evolution of the SPL.	PuLSE C.2 / Planning Game in SPLE C.1 / CADSE / COPE+ C.1 / PLEvo-Scoping D.1, D.2, D.3 and D.4 / RiPLE C.5 and D.4 / ISPL 1
Prioritize Products	Give higher/lower prioritization to products during SPL scoping.	Kishi *et al.* 4 and 7 / Noor *et al.* 2 / Planning Game in SPLE A.3 / RiPLE B.5 and D.3 / Cruz *et al.* 4 / PPSMS A.2 / CoMeS 7

References

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[3] J. Lee, S. Kang, D. Lee, A comparison of software product line scoping approaches, International Journal of Software Engineering and Knowledge Engineering 20 (05) (2010) 637–663. doi:10.1142/S021819401000489X.

[4] J. Munch, S. Trieflinger, D. Lang, Product roadmap – from vision to reality: A systematic literature review, in: 2019 IEEE International Conference on Engineering, Technology and Innovation (ICE/ITMC), 2019, pp. 1–8. doi:10.1109/ICE.2019.8792654.

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2. Primary Sources