

# Contact Profile (1/2)

- **Kentaro Yoshimura, Ph.D.**
  - **Researcher at Hitachi**
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- **Focus and interests**
  - **Product line adoption for legacy systems**
  - **Mining knowledge in software engineering**



# Contact Profile (2)

- **Objectives / Looking for**
  - **Sharing our industrial challenge with research community**
  - **Studying novel concepts/approaches at PLEASE workshop**
  - **Discussing future directions of SPLE**
  - **Identifying potential collaborations**

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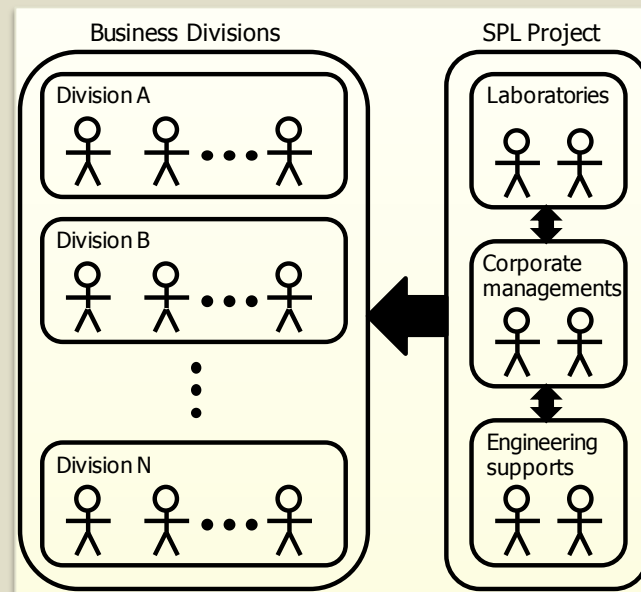
# Product Line

- **Various electric/electronic systems at Hitachi**
  - Automotive systems
  - Consumer electronics
  - Medical systems
  - Power control systems, etc

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# The Problem

- **Parallel SPL adoptions for different business divisions**
  - **Resource constraints of SPL specialists**



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# Current Solution (1/2)

- **LSEF: Legacy system evaluation framework**
  - Identifying SPL maturity level and adoption process for each product line

	Level 1 - Independent development	Level 2 - Standardized infrastructure	Level 3 - Variant products	Level 4 - Quantitatively managed	Level 5 - Optimizing	
Key area 1		Key activity 1-a				Done
Key area 2		Key activity 2-a	Key activity 2-b	Key activity 2-c		Not yet
Key area 3		Key activity 3-a	Key activity 3-b	Key activity 3-c		
				Key activity 3-d		
Key area 4		Key activity 4-a	Key activity 4-c	Key activity 4-e		
		Key activity 4-b	Key activity 4-d			
Key area 5		Key activity 5-a	Key activity 5-c	Key activity 5-d		
		Key activity 5-b				
Key area ...						

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# Current Solution (2/2)

- **SPL trainings for domain experts**
  - 1-day workshop of variability analysis with actual products
  - 20-30 participants at each division

Lecture



Breakout



Discussion



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# Why is it interesting?

- **Experimental evaluation of various SPL approaches**
  - **Multiple domains at Hitachi - different business models, cultures and core assets**
  - **Commonality and variability analysis for SPL activity itself**

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# Potential Collaborations

- **Commonality and Variability Analysis for Resource Constrained Organizations**
  - Gary Chastek
- **A Software Product Line Experience and Observations**
  - J. Jenny Li
- **Design and Validation of Variability in Product Lines**
  - Patrizia Asirelli
- **Integrating Product Line Refactoring and Derivation Tools: Challenges and Potential Solutions**
  - Elder Cirilo
- **Applying the PLUS Method to Industrial Product Line Problems**
  - Hassan Gomaa

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