

State of Enterprise Architecture in Finnish Higher Education sector



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About the au



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Patrik Maltusch

- Aalto University
- Head of EA team

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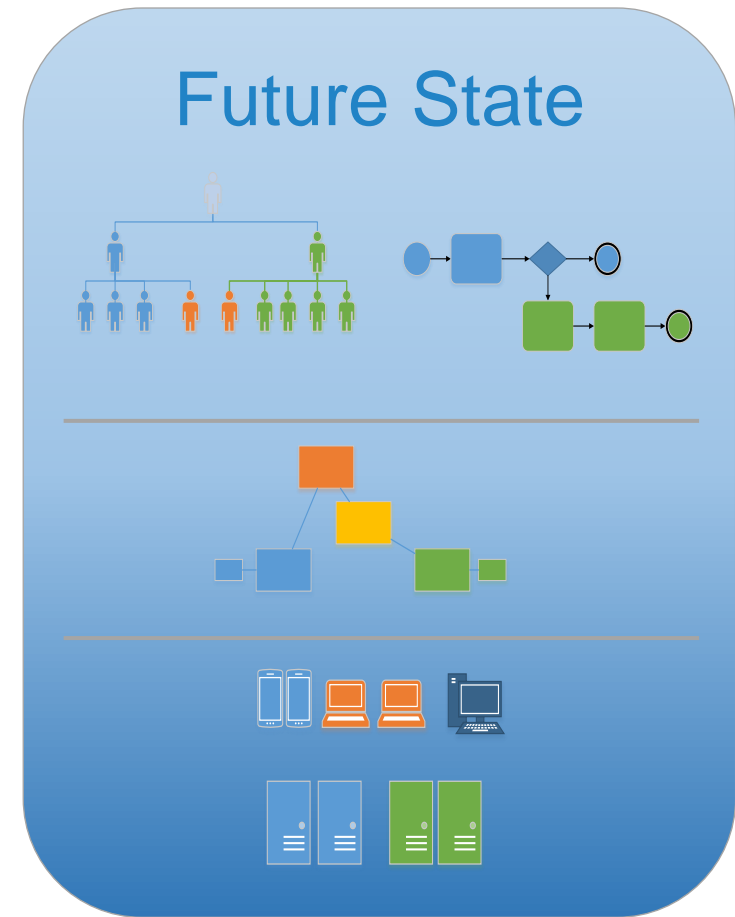
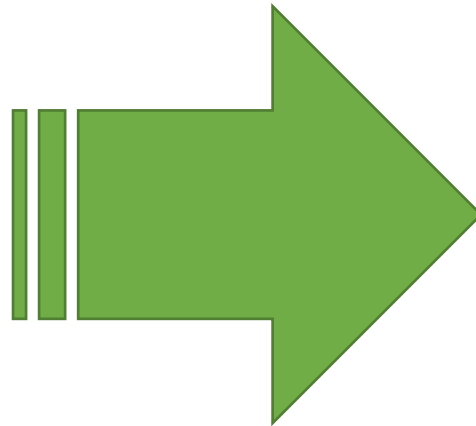
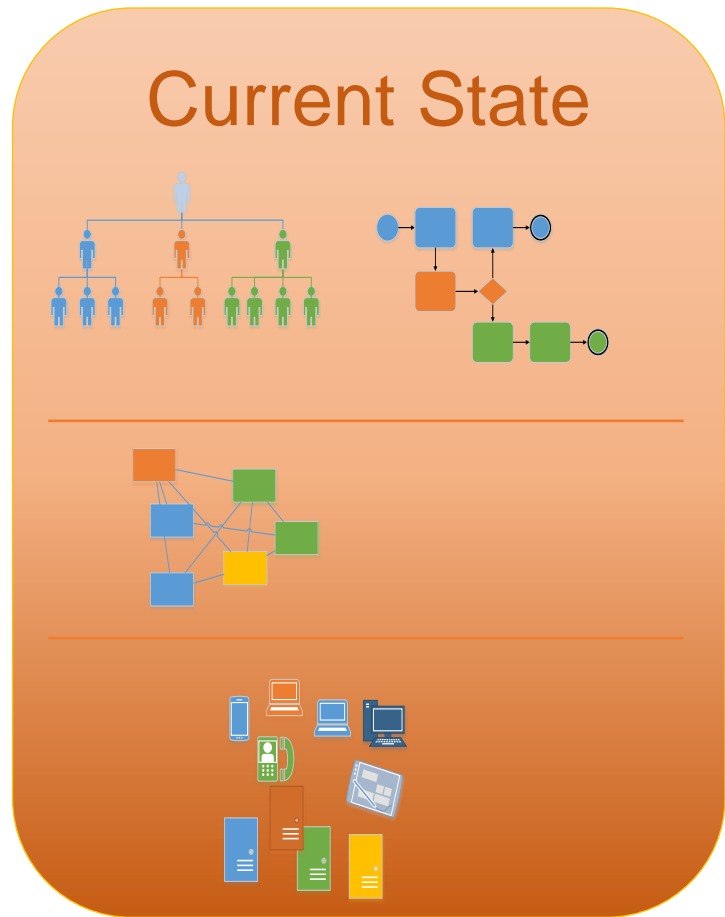
Esa Suominen

- Metropolia University of Applied Science
- Enterprise Architect

Contents

- Background – Finnish HE sector
- Introduction to KARTTURI
- Maturity assessment questionnaire
- Results
- Discussion

What is Enterprise Architecture?



Why we need EA?



<http://imgur.com/gallery/O8VQ5Dm>

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Quote of the day



“The definition of *insanity* is doing the same thing over and over and *expecting* different results.”

Albert Einstein

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Background – Finnish HE sector

Finnish Higher Education sector

- Universities (14+1)
 - Provides academic education based on research
 - Promotes free research
- Universities of Applied Science (UAS) (25+1)
 - Formerly polytechnics
 - Provide vocational education on higher level
 - Promotes applied research

Act on Information Management Governance in Public Administration

- Ratified in 2011 by Finnish Parliament
- Mandates public sector organisations to start adopting EA by 2014
 - Details to be given in a decree issued by Ministry of Finance (TBA)
- Ministry of Finance responsible for steering
- Universities are autonomous..

EA-Special Interest Group

- Founded in 2012
- Provides general EA training
- Peer support for EA practitioners
- Chairman: Mr. Patrik Maltusch
- Secretary: Mr. Esa Suominen

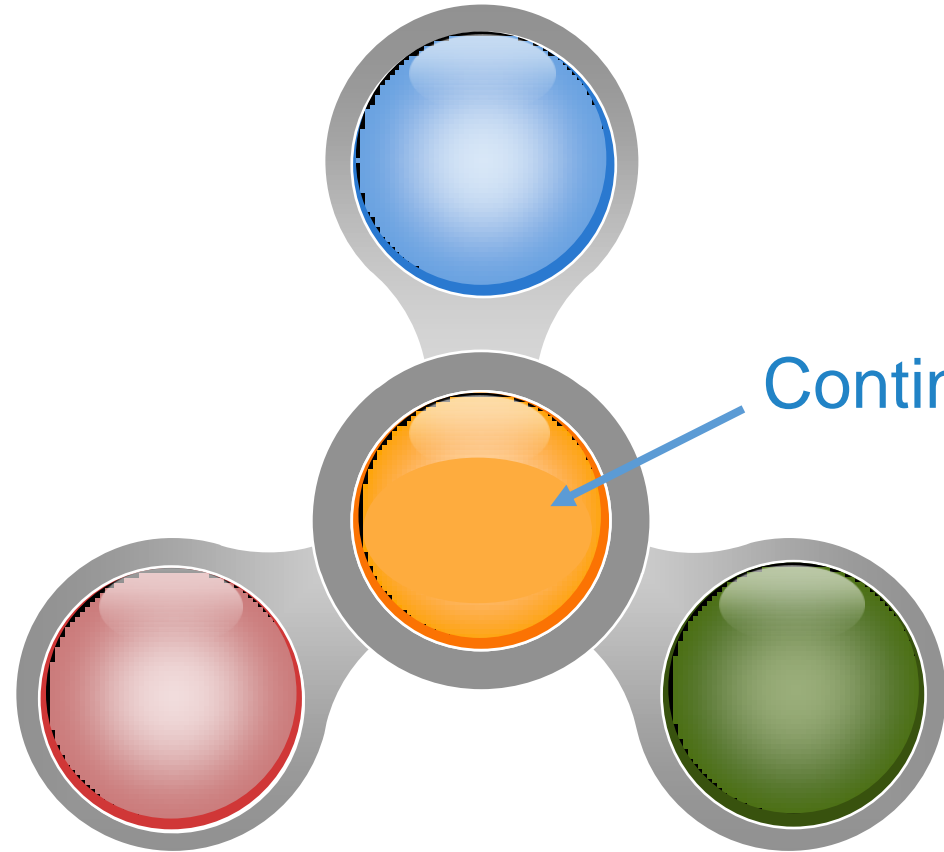


Introduction to KARTTURI

KARTTURI

EA framework

EA Governance



Continuous development

EA Maturity Model

Framework

Principal Layer
CONDITIONS

Architecture principles
Reference architectures (including legislation)
Scope and preconditions
Information security needs and principles

	Business Architecture	Information Architecture	Systems Architecture	Technology Architecture
Conceptual Layer - WHAT	Strategy	Terms	Information system services	Technology map
	Business challenges and goals			
	Services			
	Stakeholders, roles			
Logical Layer - HOW	Process list / map	Information models	Logical structure of information system services	Technology components
	Process descriptions	Logical data stores		Monitoring and administration architecture
		Information flows		
		Systems - data stores		
		Processes - Information	Systems - processes	Integration principles
Physical Layer - WITH WHAT		Interfaces and connections		Technology decisions
		Physical data stores	Systems portfolio	Network diagram
		Codes, dictionaries	Service Level Agreements	

Maturity Model

Strategic

EA is a tool for organisation's strategic leadership and planning

Managed

The usage and effectiveness of architecture descriptions and architecture management processes are regularly monitored

Defined

Organisation's architecture descriptions are produced following standardised processes and templates, and activities are organised

Partial

Part of the architecture management processes, organisations, or tools are used

Initial

EA related processes and EA organisation are not clearly defined

"Goal"



KARTTURI EA Maturity Model matrix

Domain/Level	Initial	Partial	Defined	Managed	Strategic
EA descriptions					
EA method					
Governance processes					
Development and implementation					
Organisation					
Knowledge					
Substance support					
Interoperability					

Maturity assessment questionnaire

Questionnaire

- Background questions
- Maturity questions

Domain/Level	Initial	Partial	Defined	Managed	Strategic
EA descriptions					



EA maturity assessment for Higher Education Institutions

Domain 1: EA descriptions

Which kind of EA descriptions (blueprints) your organisation have?

Currently achieved +6 +12 +24 n/a
mo. mo. mo.

Level 1: Initial - EA documentation is informal or non-existent.

There are some individual descriptions or drafts, which do not necessarily follow any agreed models.

Level 2: Partial - Architecture documents are partly based on agreed models.

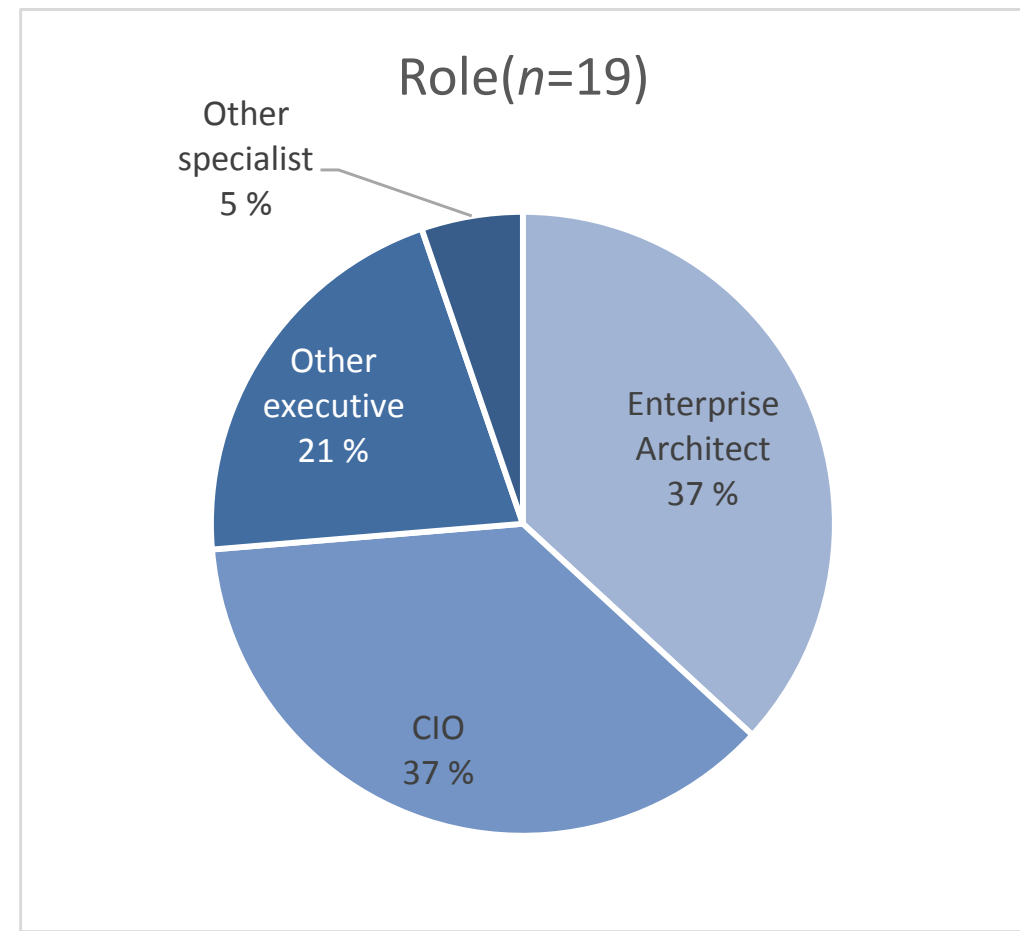
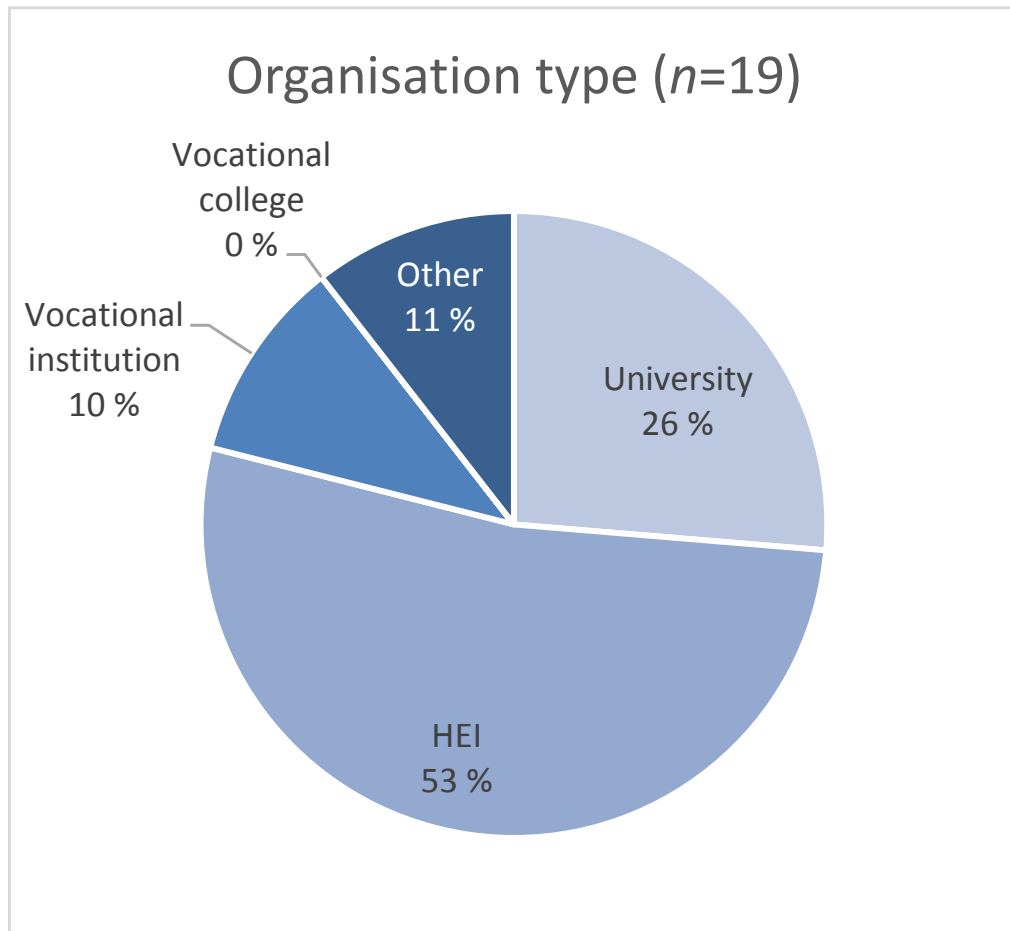
There are organisation-wide architecture descriptions and technology standards produced at least partly using agreed models.

The need to gather descriptions to a central place is identified and started.

There are descriptions for both current and target state of the organisation.

Results

Background information (1/2)

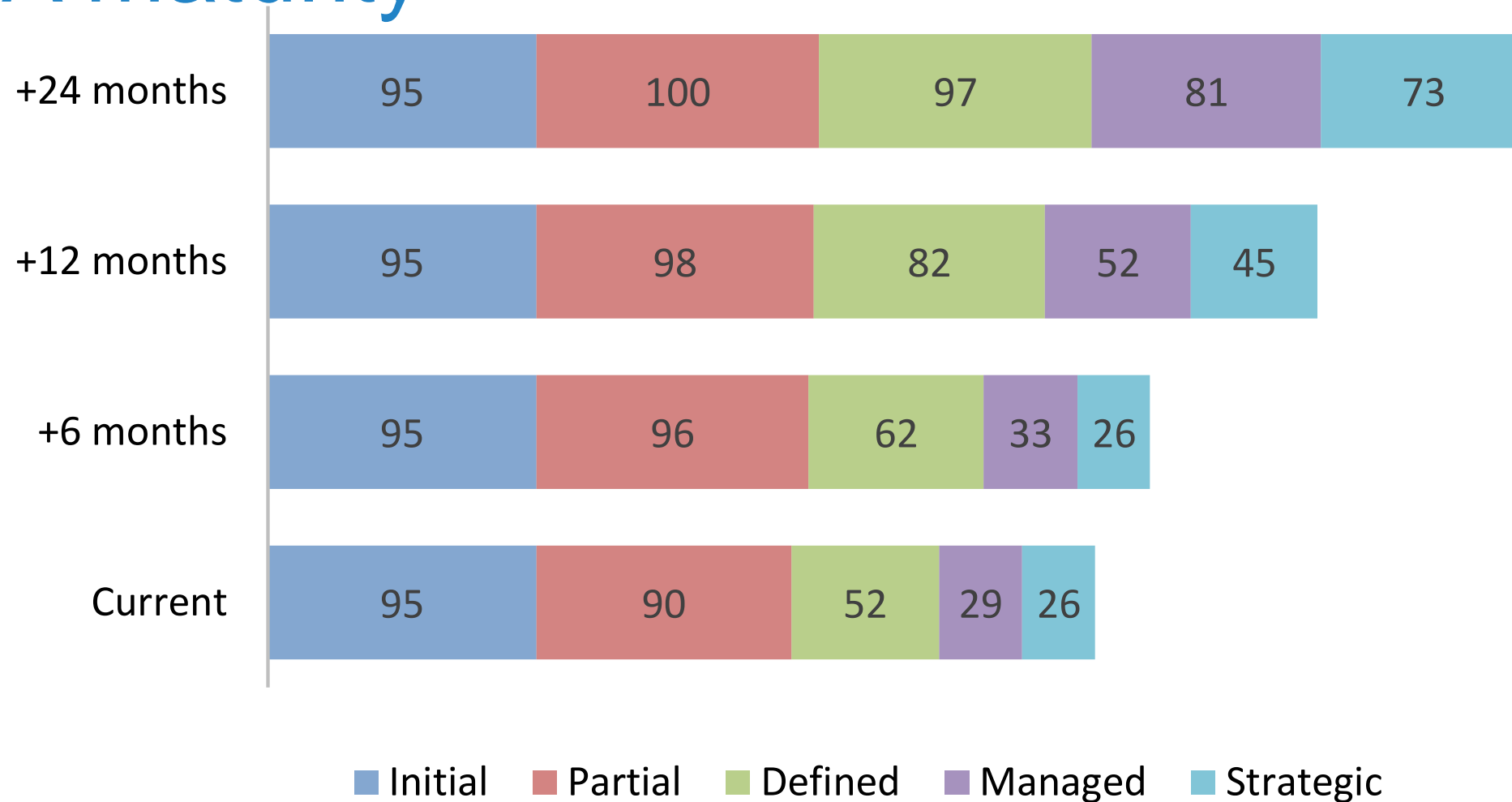


Background information (2/2)

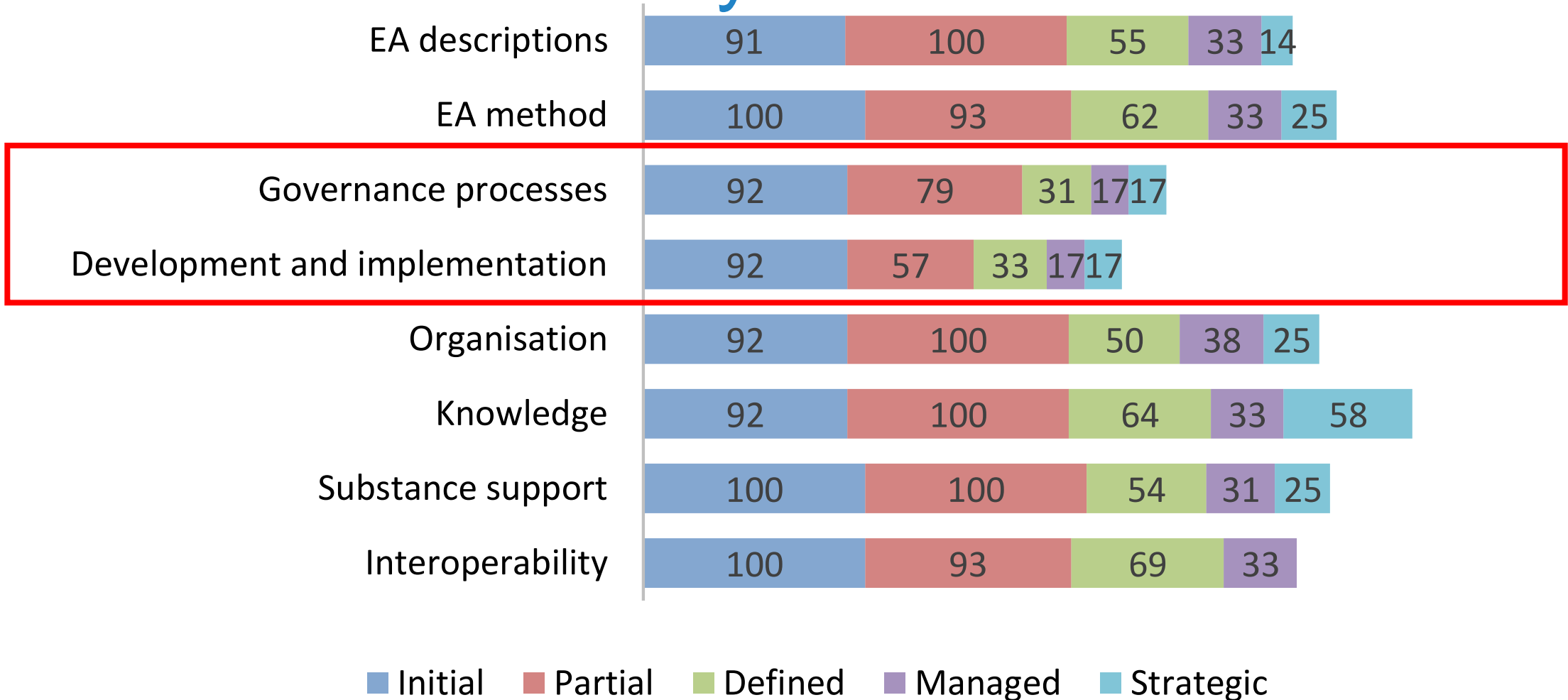
- Annual EA work 2.75 FTE
- Full-time EA personnel 0.46
- Significance of EA work:

(weak)				(strong)	n	\bar{x}
1	2	3	4	5		
0	7	4	5	1	17	3

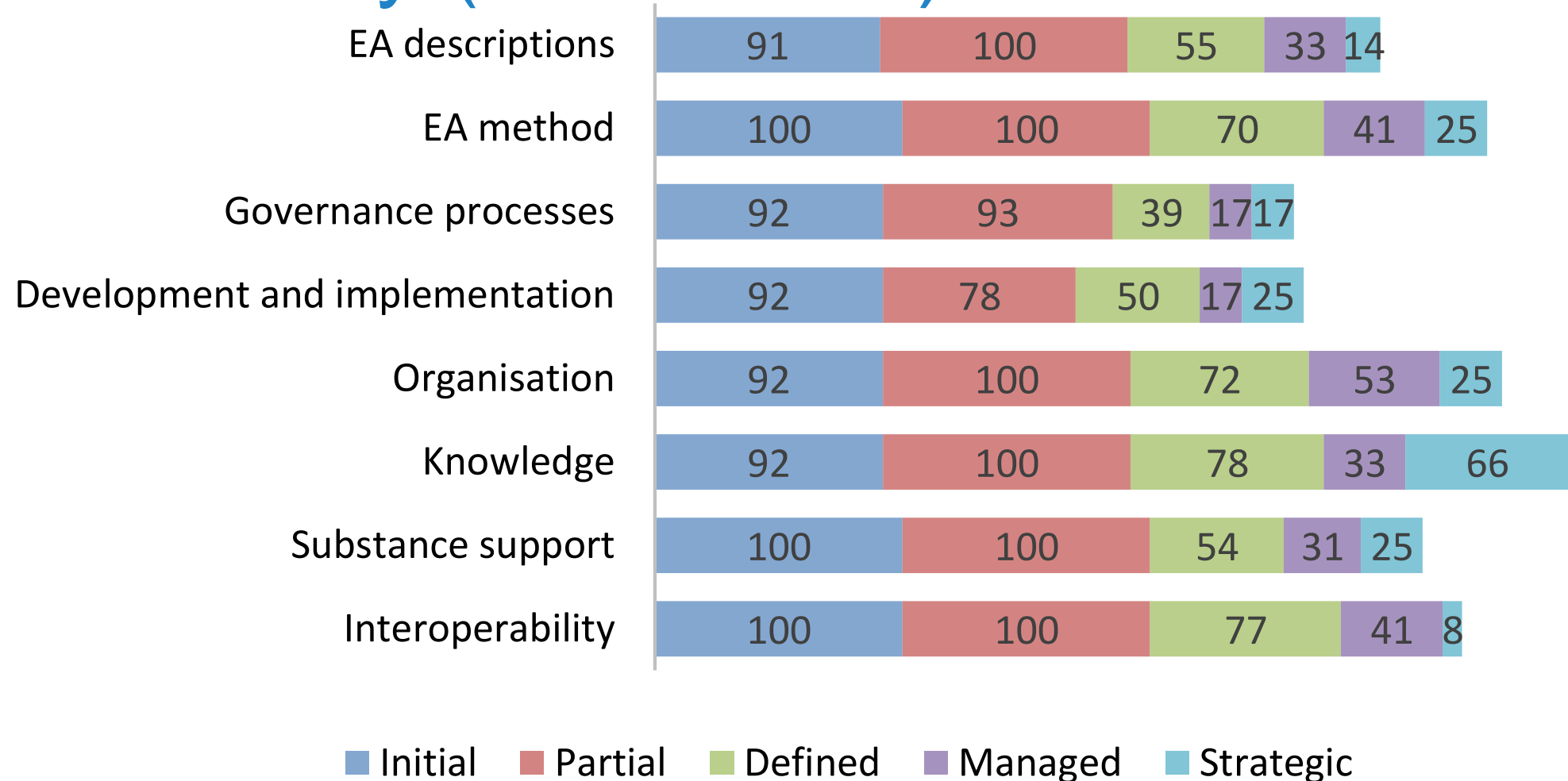
EA maturity



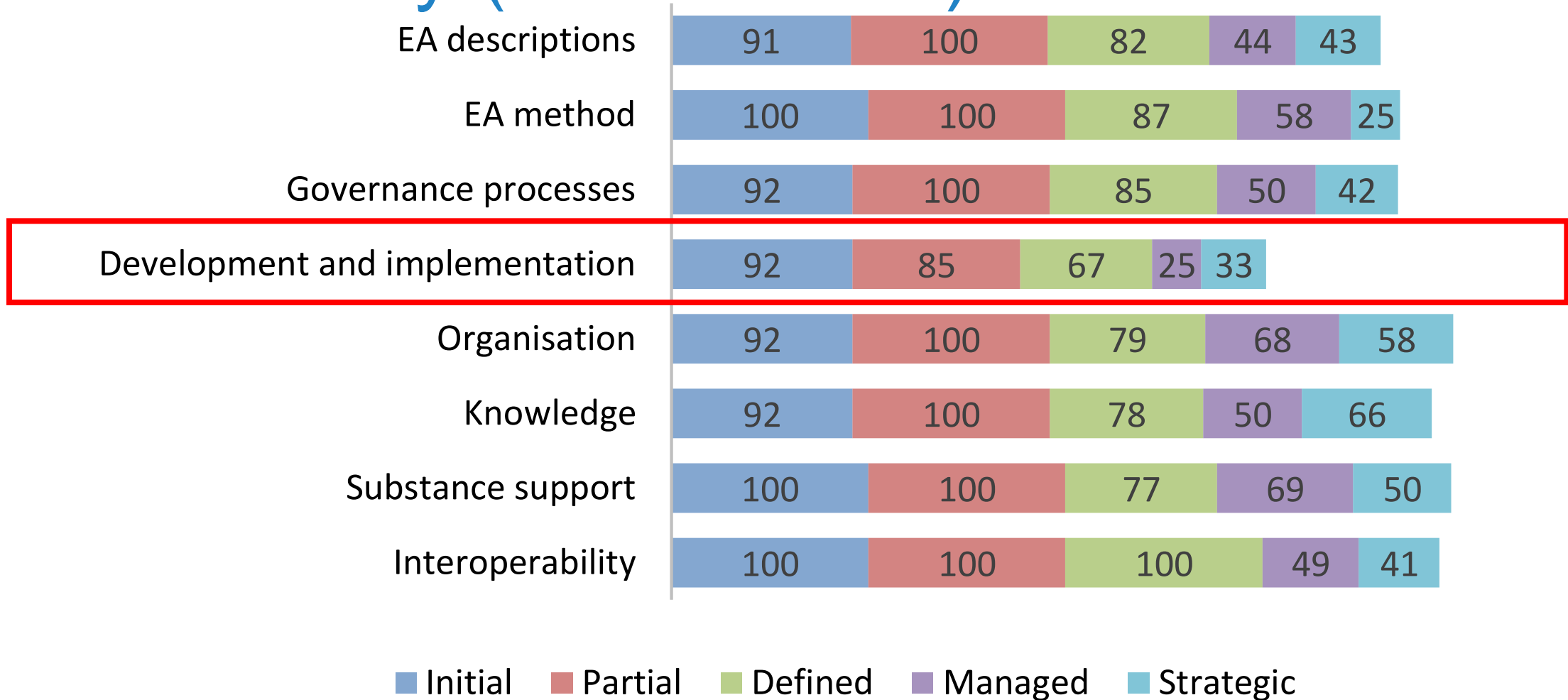
Current EA maturity



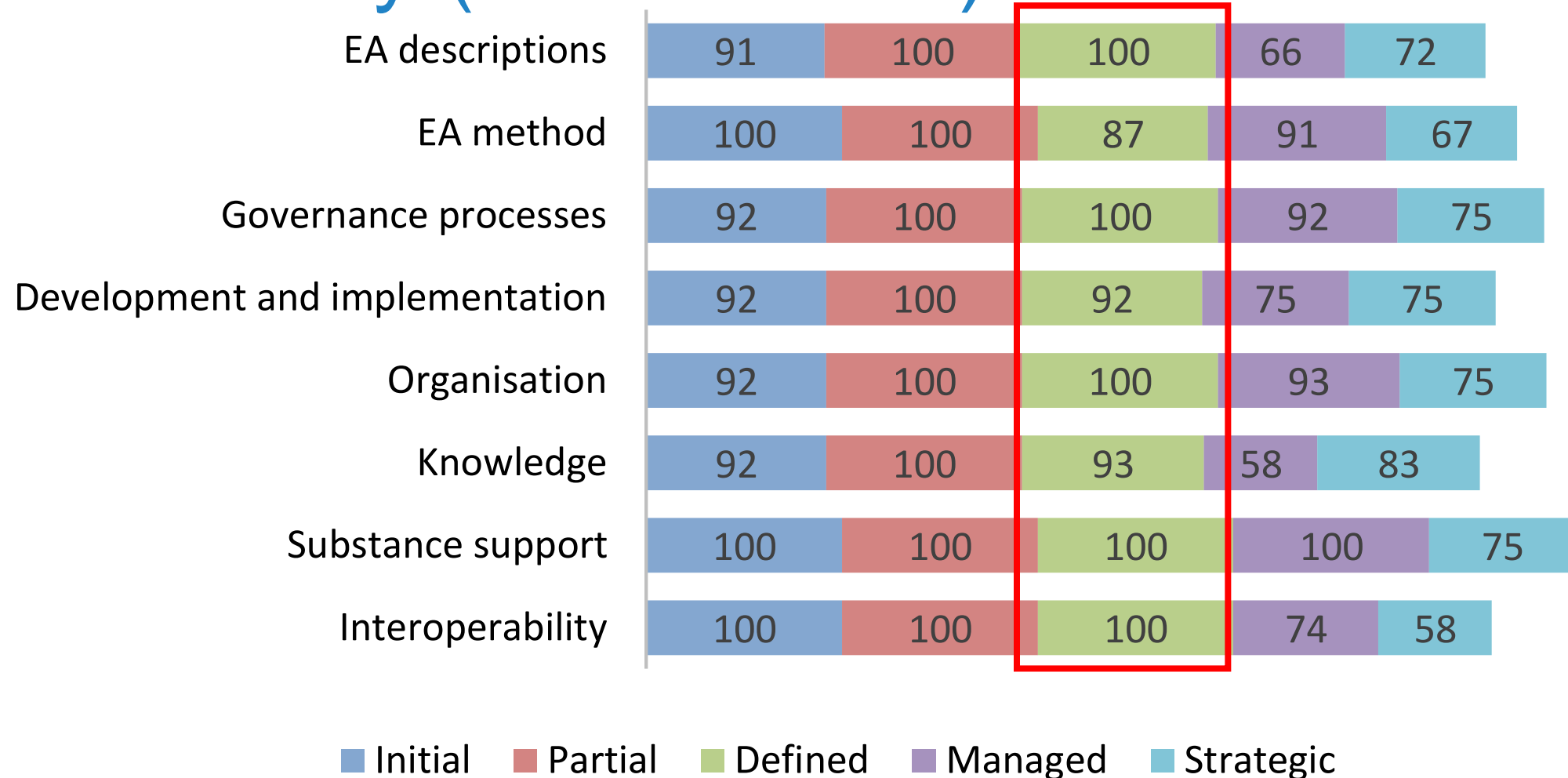
EA maturity (+6 months)



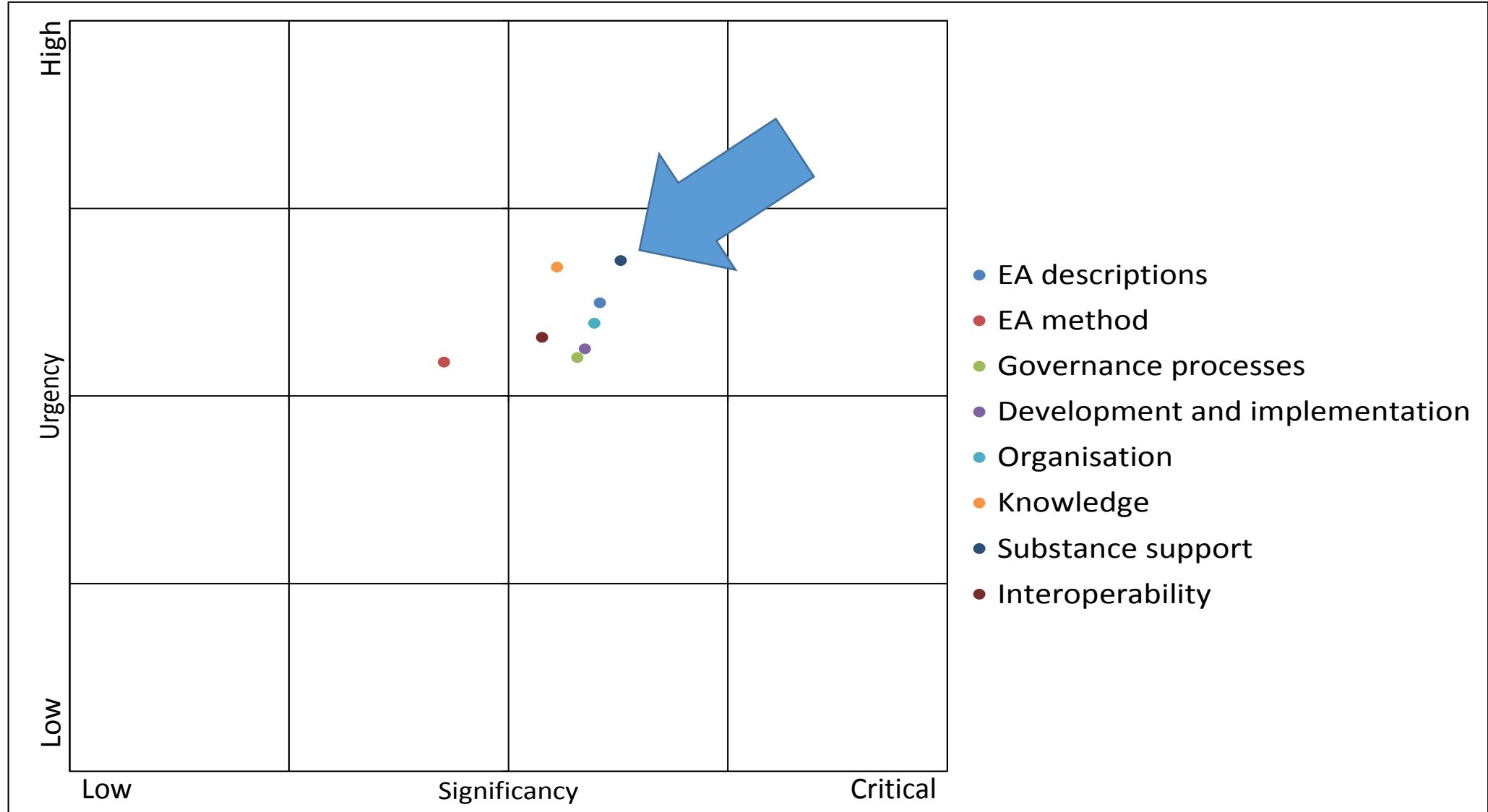
EA maturity (+12 months)



EA maturity (+24 months)



EA capability maturity profile



Discussion

Conclusion & discussion

- EA maturity in Finnish HE sector is low
 - Only half have achieved the *Defined* level
 - Goal is to get all to *Defined* level in by end of the 2017
- What to do next?
 - Focus on domains having lowest maturity
 - Provide appropriate training
- Call for European wide EA maturity benchmark

Thank you!

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