

Session report

MBSE 2022 interactive session

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Report

MBSE 2022 interactive session







Nov 24, 2022

To discuss the following topics:

- implementation of semantic interoperability
- infrastructure concerns that impact MBSE adoption
- state of digital thread in current practice

 Activities

 Warm-up	3 questions
 Topic 1 - interoperability	4 questions
 Topic 2 - infrastructure concerns	4 questions
 Topic 3 - state of digital thread	4 questions

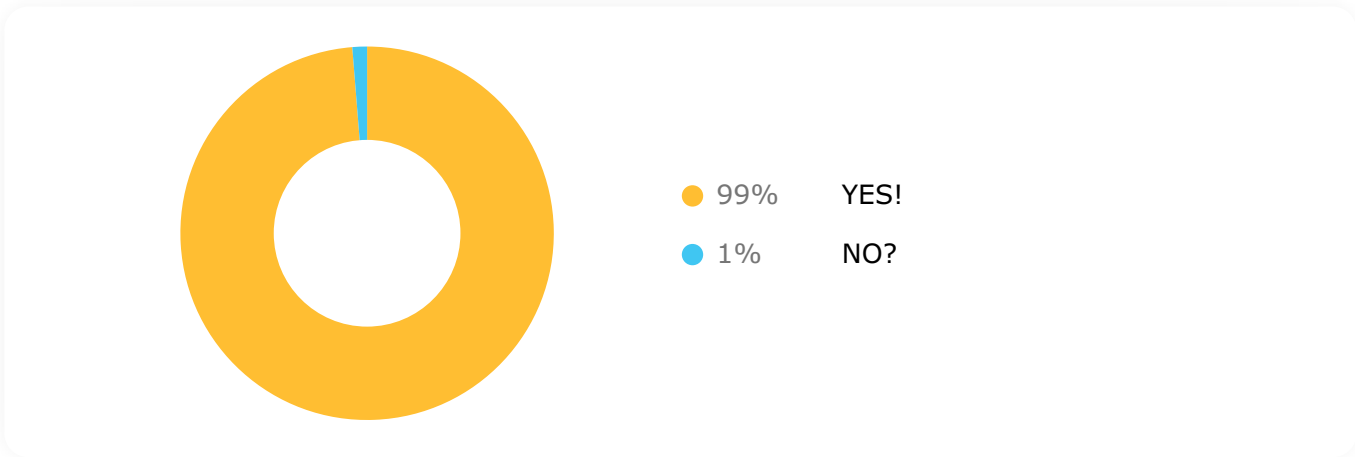
 Warm-up

Number of participants	96
Number of questions	3

Question 1

Do you enjoy MBSE 2022?

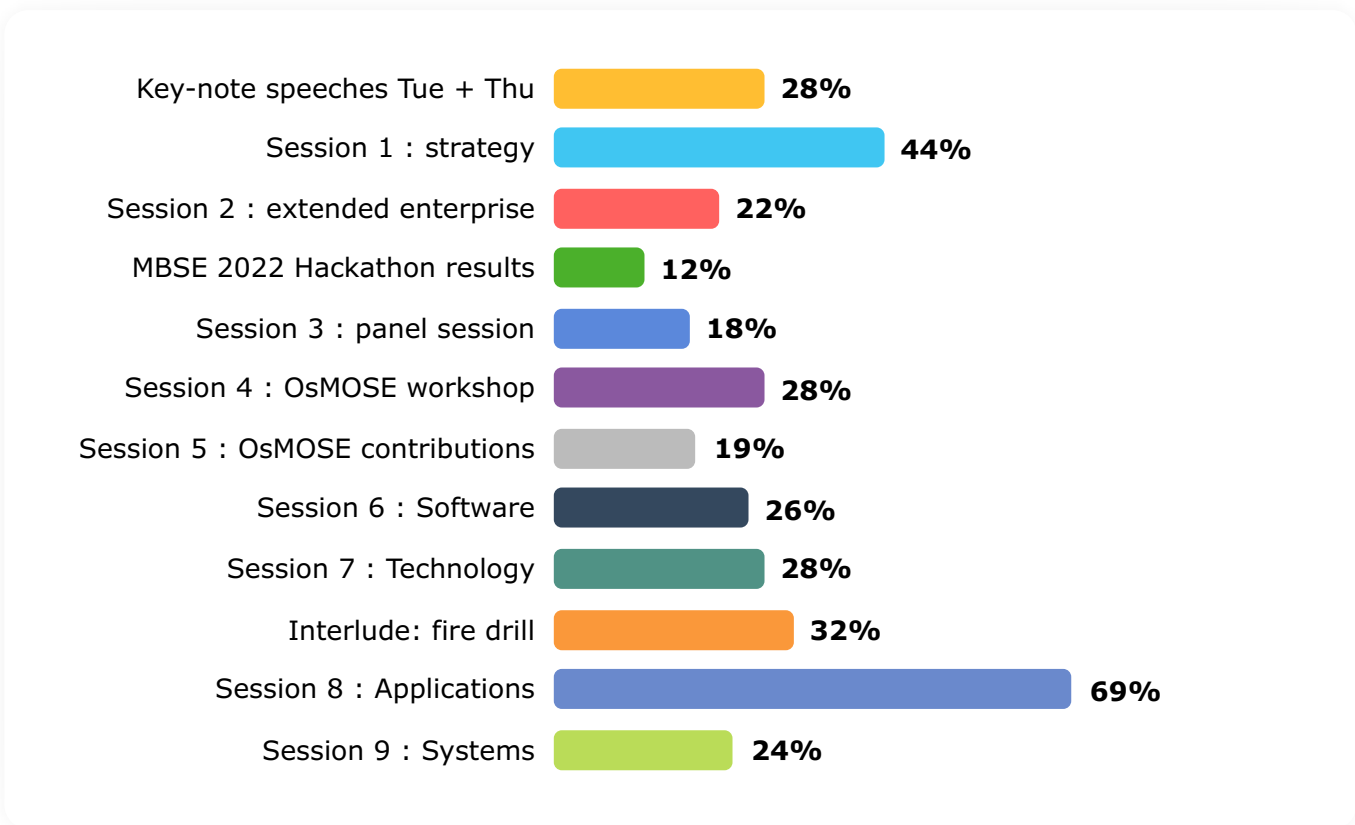
single choice 2 choices



Question 2

What is (are) your favorite session(s)?

multiple choice 12 choices



Question 3

What is your key take-away from MBSE 2022?

open ended question

diversity of MBSE field.

Promote SE as prerequisite for (MB)SE

Need for a roadmap

Not if, but how do we operationalize MBSE

Great organisation

complete new network to discuss the strategy to go further

Things are difficult

Ideas and inspiration.

It's time for change

Tools+MsBSE

Excellent hospitality!!

Only do MBSE if it's useful for your project

We seem to be halfway there.

ESA are diligently working towards inter-operation.

That we are on a good path with heaps of work ahead of us, which I think is great.

MBSE should be more about Systems Engineering

Space System Ontology

Lot of Ontology, Lot of connector, Lot of technology, Modeling is Well represented, Requirement is not take enough in consideration.

We need to get system engineers and management in board and get started using MBSE productively

Connecting with people from the MBSE community. Information about the SSO

The power of meeting all stakeholders in the same place in person is evident.

We are all the same

MBSE is for SE but everyone does it its own way. Way to unite all are in process

We need to get better at how we present MBSE.

Meeting in-person!

Solid and determined community

there is no one "MBSE model"

More theory than application

Need to develop RAMS/FDIR part + config. Management

Change from "if" to "how". Things are moving, but still slowly. MBSE can work.

Right direction

MBSE offers a lot of potential but it's still in early stages, lots of interesting projects but looking forward to seeing more applications and consolidated projects next year

We have got a lot of work to do !

MBSE is SE. Acknowledgement and push needed to implement it industry-wide.

Knowledge

Tools are not always as perfect as they are presented, Getting teams to collaborate by switching their usual practices is hard

Amazing People



Deployment ideas for MBSE

SE then MB

Interoperability

Alignment

MsBSE

First concrete steps and still a long way to go

Capella remains the preferred solution for the REAL modellers

To finally know what MBSE is about

Need for harmonisation / standardisation

A truly multi-disciplinary challenge requiring strong formal foundation

Arcadia / Capella is widely used!

MBSE is SE ! --> MBSE should not be reserved to experts but a collaborative work. --> models

MBSE or MsBSE, deployment strategies, MBSE still 20 years away from truly being MBSE

Ontologies can be project specific

Importance of versioning Importance of users/ usage / multi disciplines

Interoperability between engineering authoring tools and between European partners is critical to empower MBSE

MsBSE

Major improvement those last years

We're moving forward - lots of good work

Mbse is operationally used in several companies.

Foundation needs to be clearly define to improve SE and its digitalization

Mbse including data from all engineering life cycle and not only functional or architecture data ("system engineering data")

Before : More tools than user Now : Nearly Babel thanks to ontology

Configuration control/management Training

Diversity of viewpoints regarding MBSE

Lessons learned, ontology, semantics, still searching a bit

Extended enterprise topics are growing

I did know almost nothing about MBSytemE and now I am an expert :-)

PI aspect Models rather than model

First in person meeting on mbse.

MBSE is SE and MBsSE implies more than one model

Exchange

Collaboration



Topic 1 - interoperability

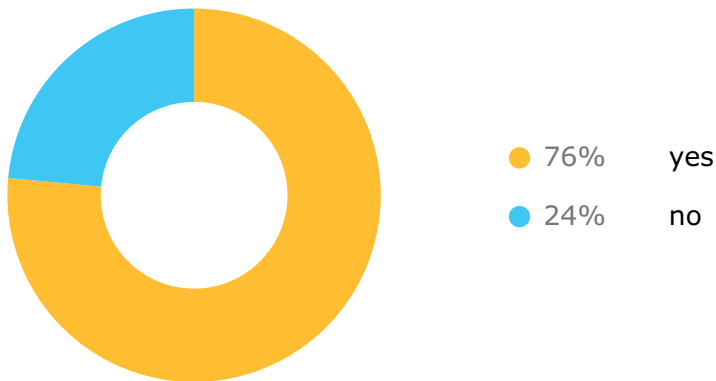
Number of participants	78
Number of questions	4

Question 1

Do you (plan to) look at OsMOSE ontologies?

single choice

2 choices

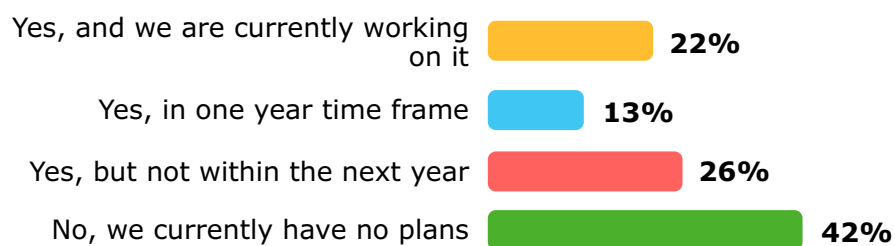


Question 2

Is implementing OsMOSE ontologies on your roadmap?

multiple choice

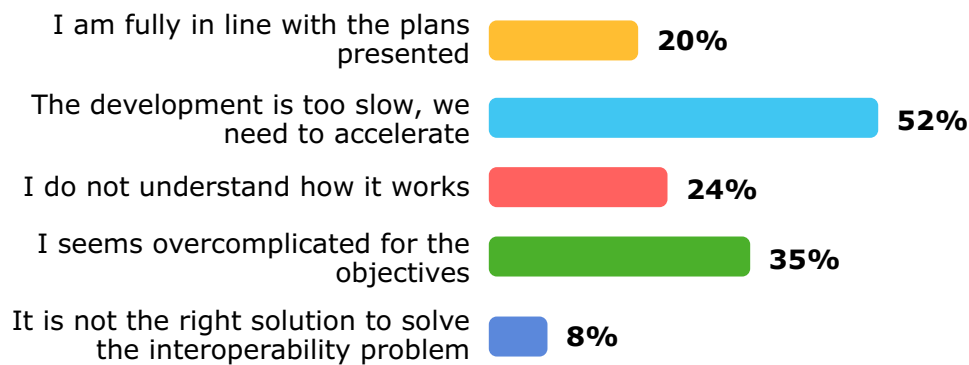
4 choices



Question 3

What do you think about OsMOSE current plans?

multiple choice 5 choices



Question 4

What is the next high-priority Universe of Discourse that needs to be addressed by OsMOSE?

open ended question

Ground station planning

Links to the engineering disciplines

Coms

Pass

Simulation

Operations, creating a "timeline-bridge"

Analysis-driven : function independence, time constraints, communication busses (1553, TSN...)

Software, GNSS

Physical Properties

A Systems Architecture Framework that takes the products from MBSE and transforms them into the deliverables defined by ECSS.

How to simplify to iOS-class usability ?

Make it understandable.

Consolidate with other SSO

Equipment CVs / link to EDS

Simplicity

Mission Operations

The MAPPING from_and-to the ontology to the SysML profiles with tool implementations.

Physics

Test and AIT

COMMS

The parallel one

SE

What?

An encyclopedia

Interfaces and product trees

Conf management

Requirement and verification

Consolidate the core before going forward

Start with clarifying more into detail

Rams & fdir

Margins

toward Operations

Interface management

Simplification

Language of engineers without modeling prerequisite.

Understanding this question, maybe :-s

Change management

Configuration management

Requirements

Ontology for project management information related to systems architecture is useful for project managers

SE

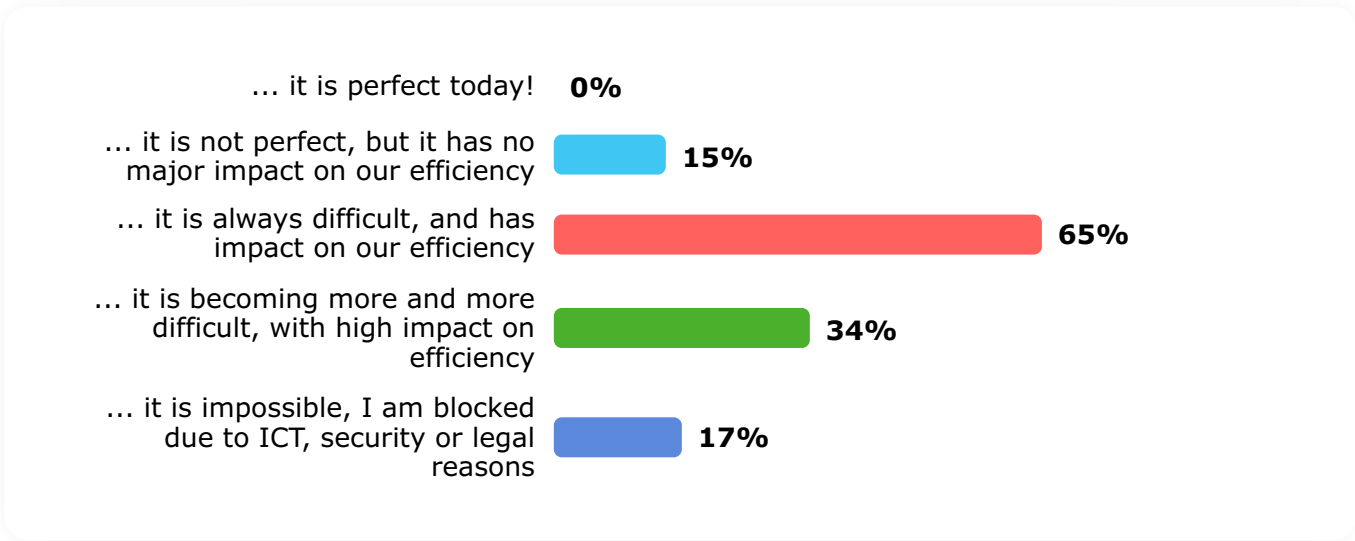
Topic 2 - infrastructure concerns

Number of participants	75
Number of questions	4

Question 1

Working with your customers and partners, exchanging information is ...

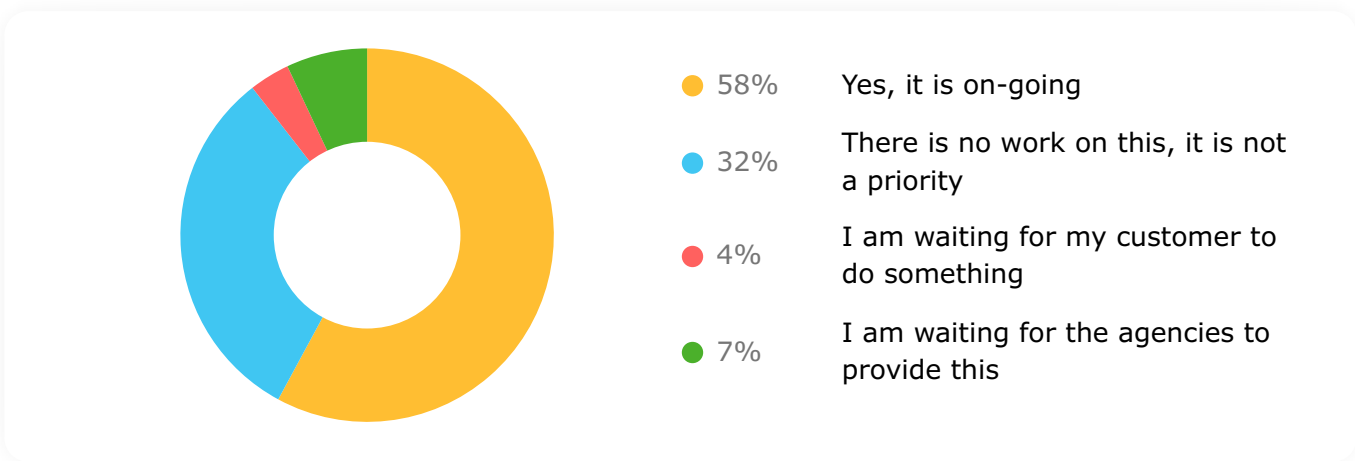
multiple choice 5 choices



Question 2

Are you working on the extended enterprise infrastructure?

single choice 4 choices

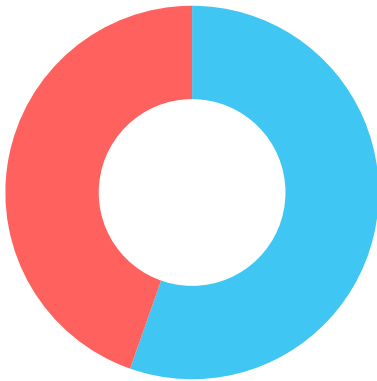


Question 3

What kind of extended enterprise would work best for you?

single choice

3 choices



● 0%

Working in my customer environment and with the tools it provides to me

● 55%

Working in my own eco-system (tools, network, ...) and exchanging data to my partners

● 45%

Interconnect with different entities and have a federated architecture

Question 4

Are you ok to change corporate tooling in order to be interoperable with others?

single choice

2 choices



● 57% yes

● 43% no

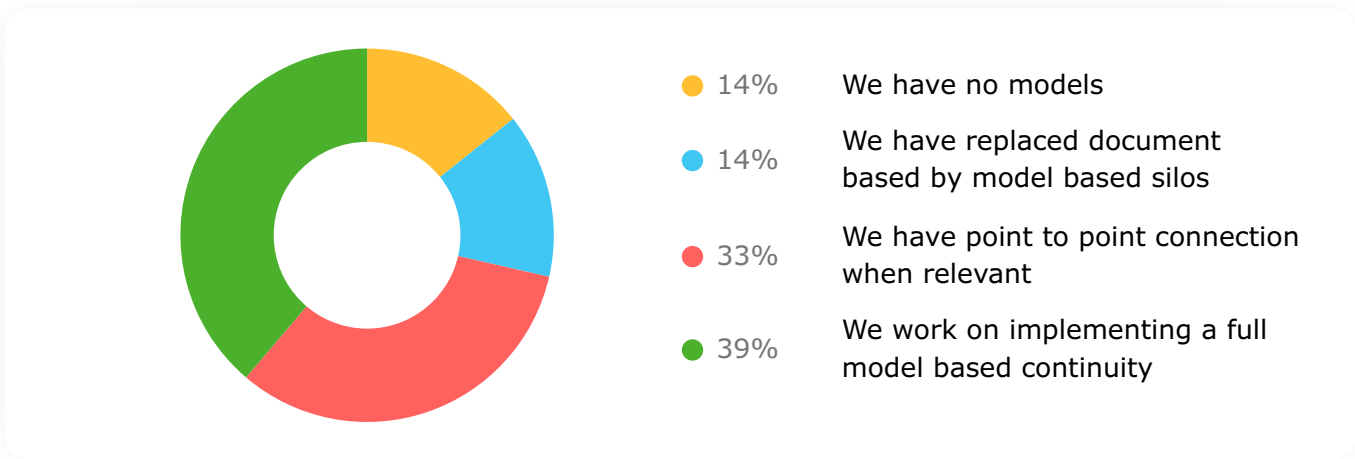
Topic 3 - state of digital thread

Number of participants	59
Number of questions	4

Question 1

How "connected" are your models currently?

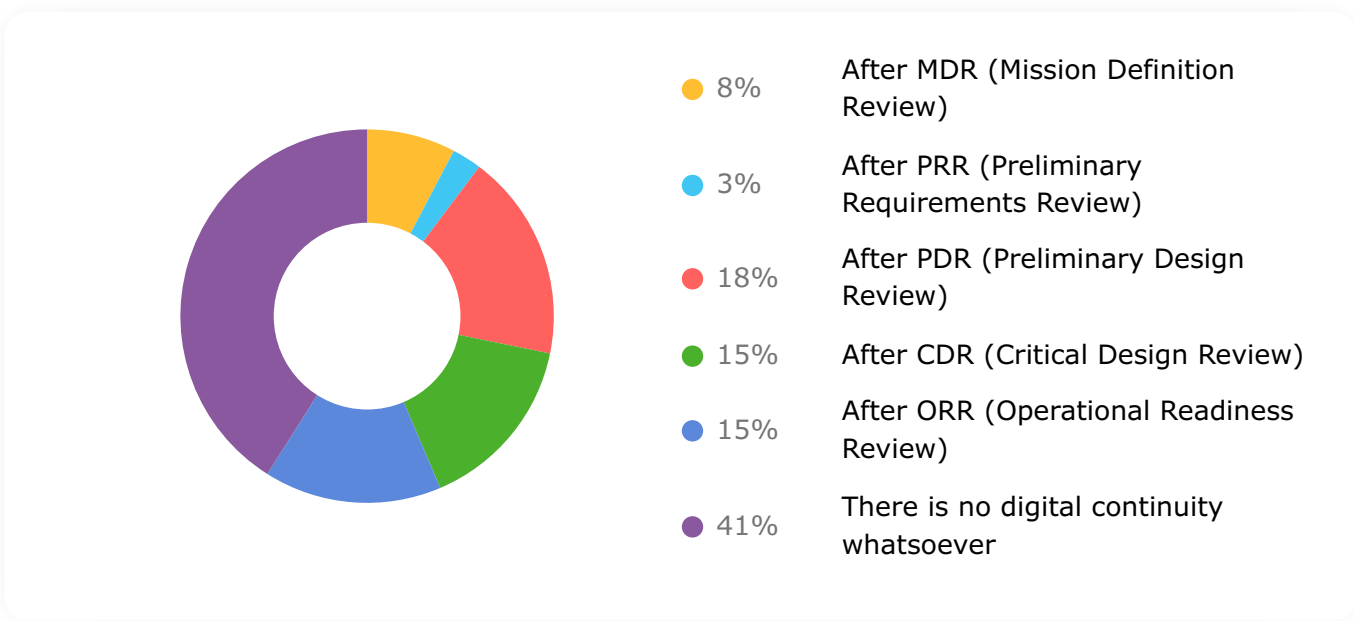
single choice 4 choices



Question 2

At which step of the lifecycle does digital continuity disappear?

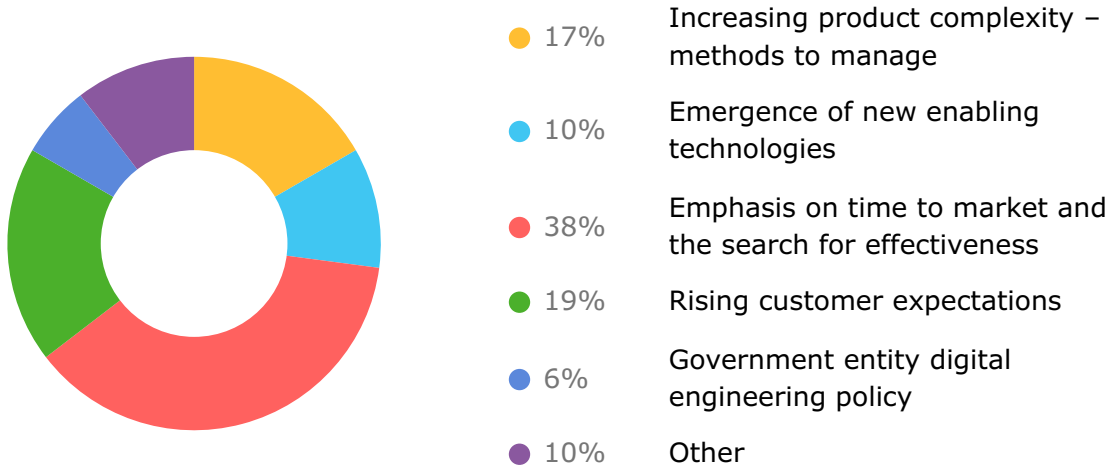
single choice 6 choices



Question 3

What is the main driving force behind the implementation of Digital Thread in your organization?

single choice 6 choices



Question 4

In which post-development lifecycle will MBSE provide the most benefit?

multiple choice 3 choices



Benjamin F. *3 centuries ago*

Tell me and I forget, teach me and I may remember,
engage me and I learn.

Klaxoon *today*

Thank you for your
participation.

