

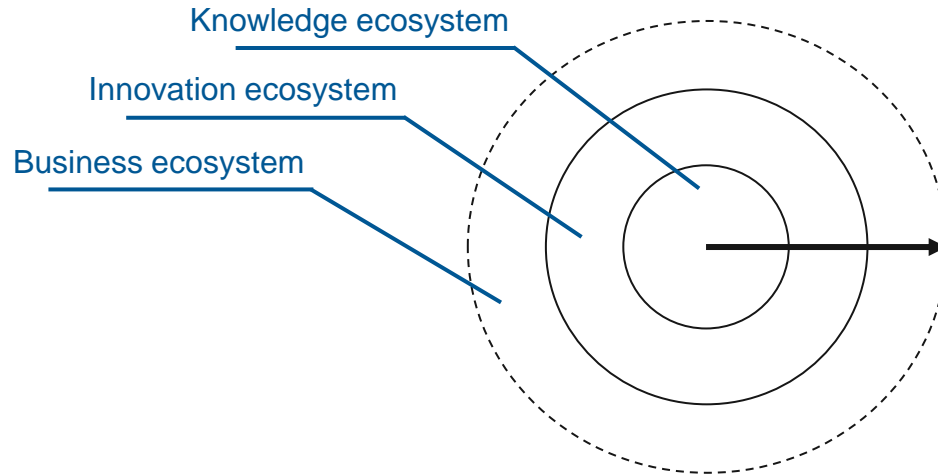
# Fusion ecosystem – Supporting companies interested in fusion business

VTT –Beyond the obvious

Presenter: Juuli Huuhanmäki, Research Scientist at VTT

# What is an ecosystem...

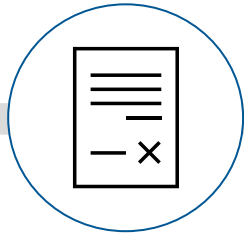
*“The **ecosystem** is defined by the alignment structure of the multilateral set of partners that need to interact in order for a focal value proposition to materialize.”<sup>1</sup>*



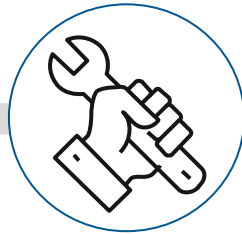
Moving towards business ecosystem:

- Company involvement increases
- Value capture increases

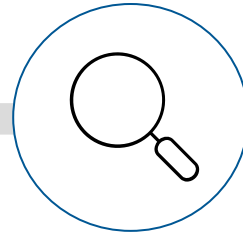
## ... and why to consider fusion ecosystems



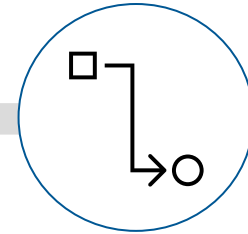
Offer phase



Lack of resources  
and resource intensity



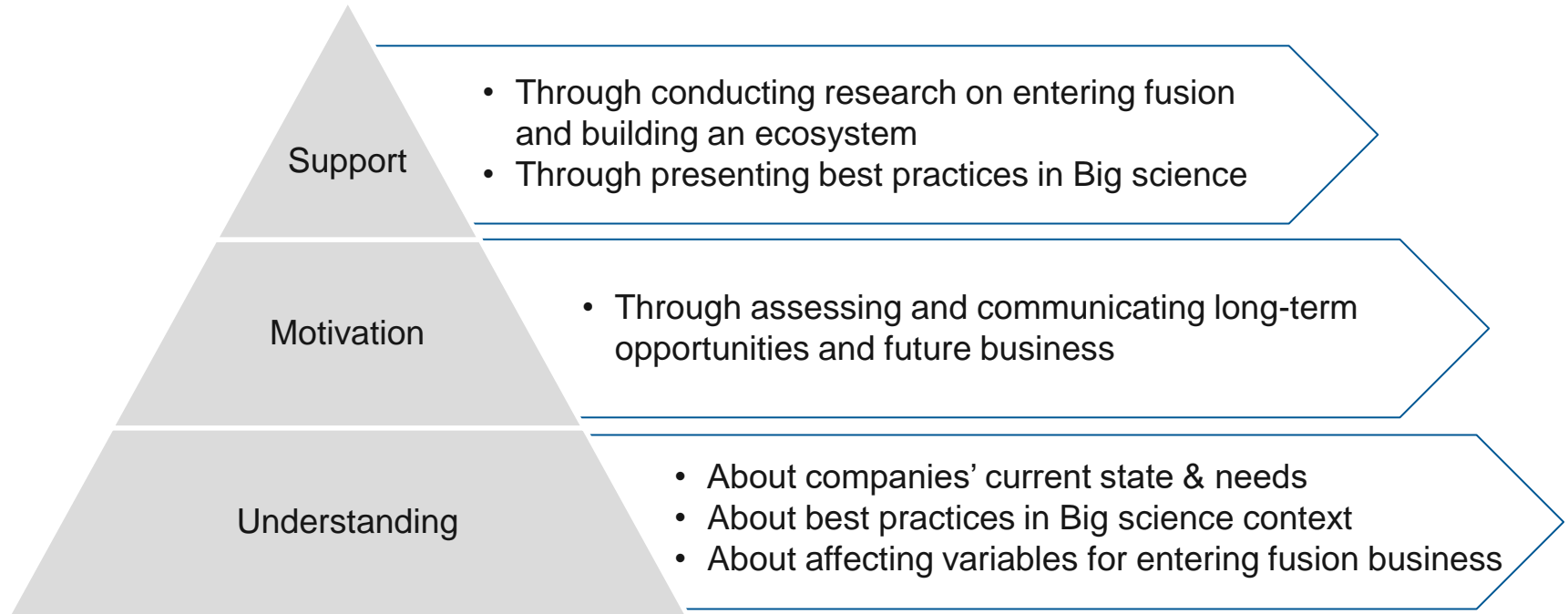
Not recognizing  
possibilities



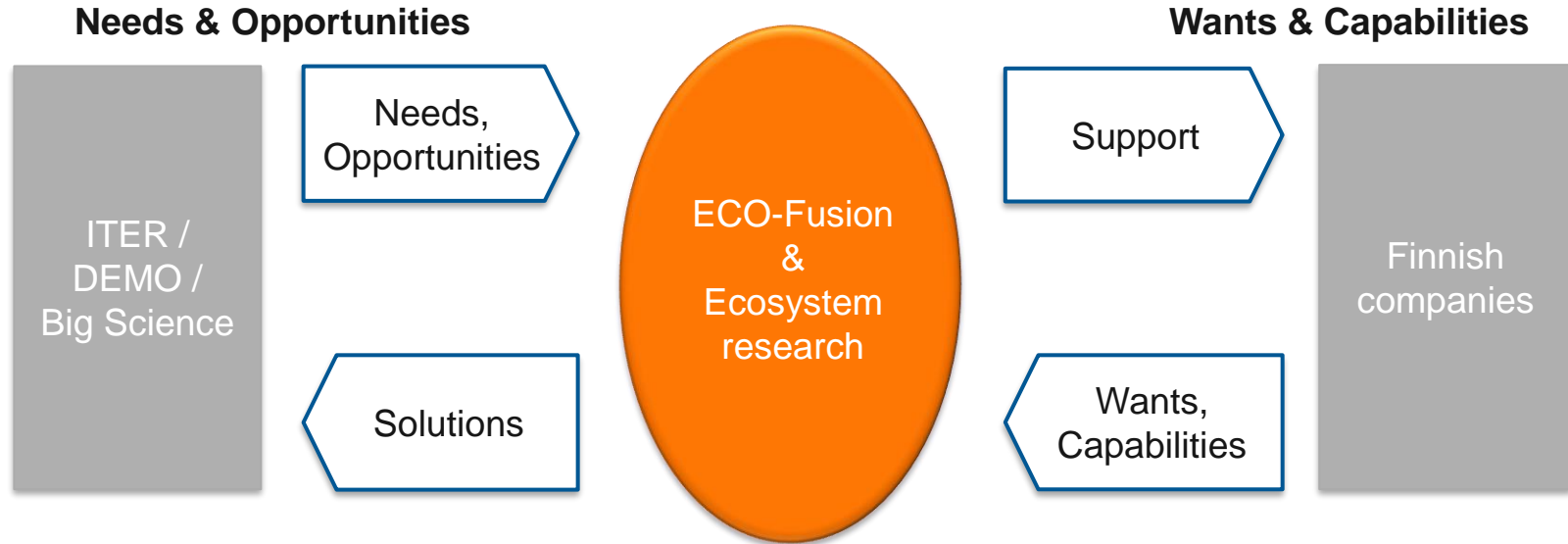
Gap between research  
and participation of  
companies

**Finnish companies aren't extensively participating in ITER or other Big science projects**

# We bring value to Finnish companies by creating understanding, motivating and supporting...



## ... and by matching wants and needs between projects and Finnish companies



# Our actions aim at finding solution to the initial problem

Capturing current opportunities → Recognizing new opportunities

**System Dynamics model:** What affects capturing and recognizing opportunities in ITER/DEMO/Big science?



## **Interviews, discussions**

What could Finnish companies' current business be in Big science? Partnerships?

What could Finnish companies' future business be in Big science? Partnerships?



## **Benchmarks**

How can companies innovate with each other?



## **Scenarios**

How is business field in fusion developing and affecting opportunities?

# We use system dynamics modelling as a toolbox and a way to understand complex problem

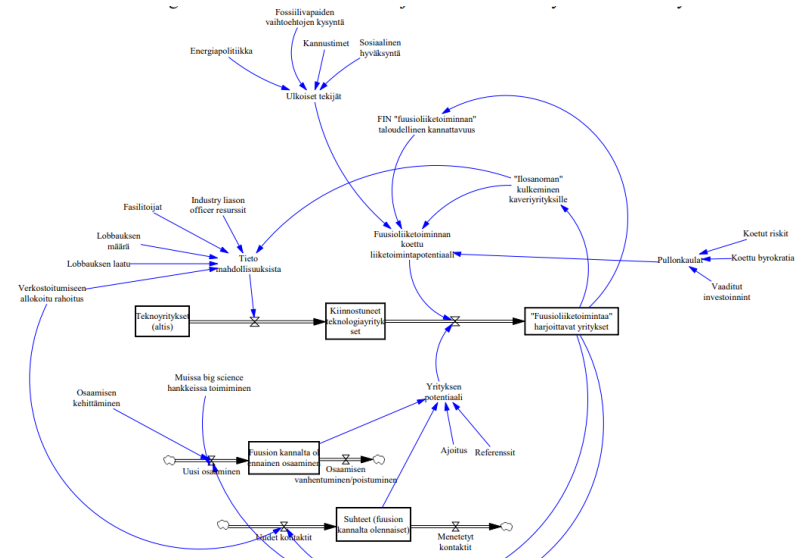
*Systems thinking* is a conceptual framework grounded in *Systems Dynamics*..  
 ..seeing and understanding patterns – looking beyond events – to deeper “structures” that control events and discovering the leverage that lies hidden in these structures. (Peter Senge)

## ■ Purpose of SD modelling

- **Understanding** - Engage people to think more carefully about a complex situation they do not yet completely understand
- **Change** - How can we design a robust strategy to radically improve the performance into the future?

## ■ SD modelling in ECO-Fusion project

- **Question:** How can we improve participation of Finnish companies in fusion
- **Objective:** Identifying and understanding *leverage points* to increase participation of Finnish companies
- **Method:** SD group modelling with experts

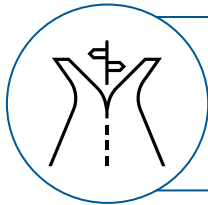




# We connect foresight work to address the innovation and business potential in fusion

*Even though science is already offering business opportunities...*

*... new opportunities can be recognized as the fusion develops.*



**Foresight work** offers a way to understand fusion development, opportunity paths and future innovation and business potential.

**Whether interested in  
our fusion ecosystem  
research work, please  
contact...**



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# Thank you!