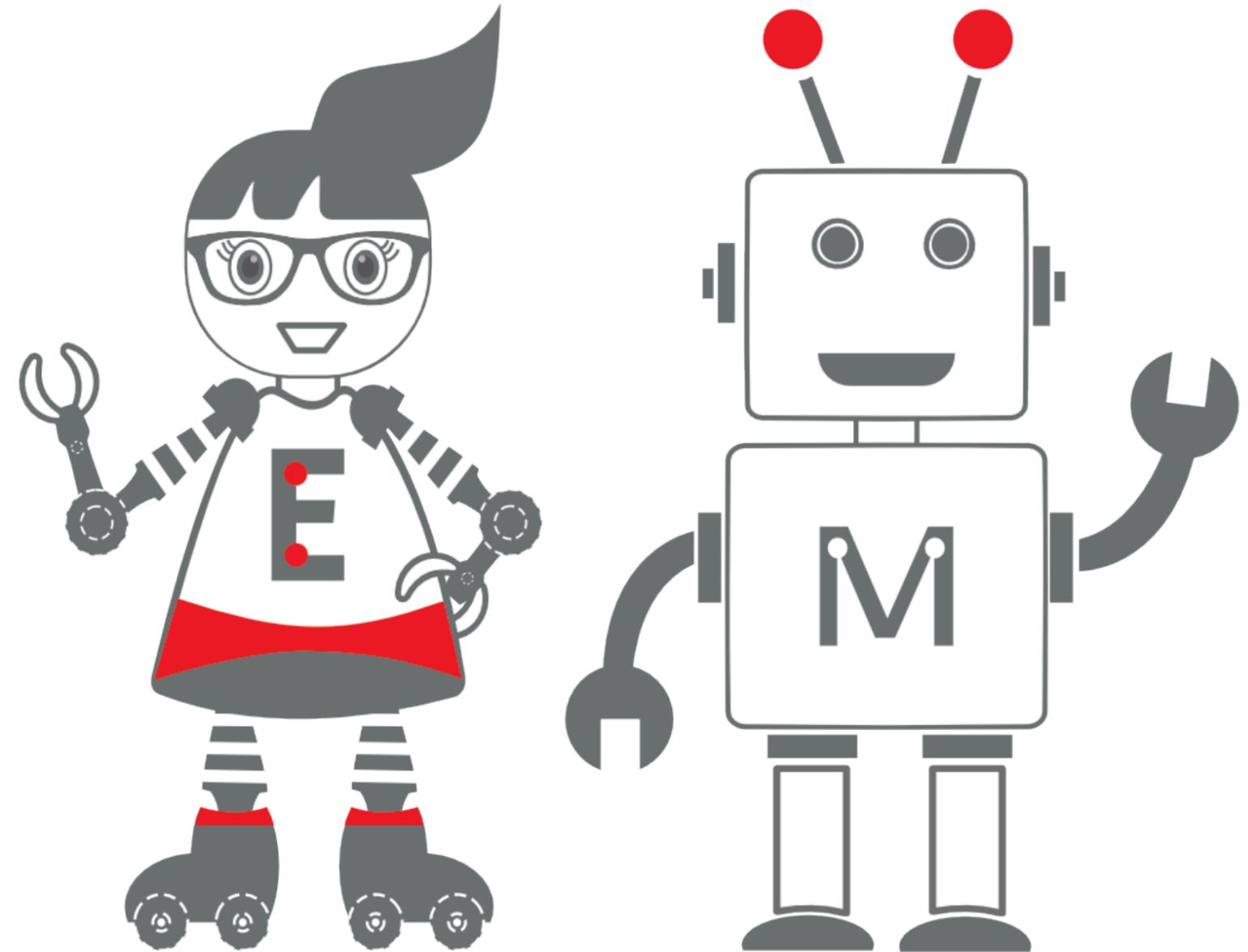


Meet

# Eliza & Marvin

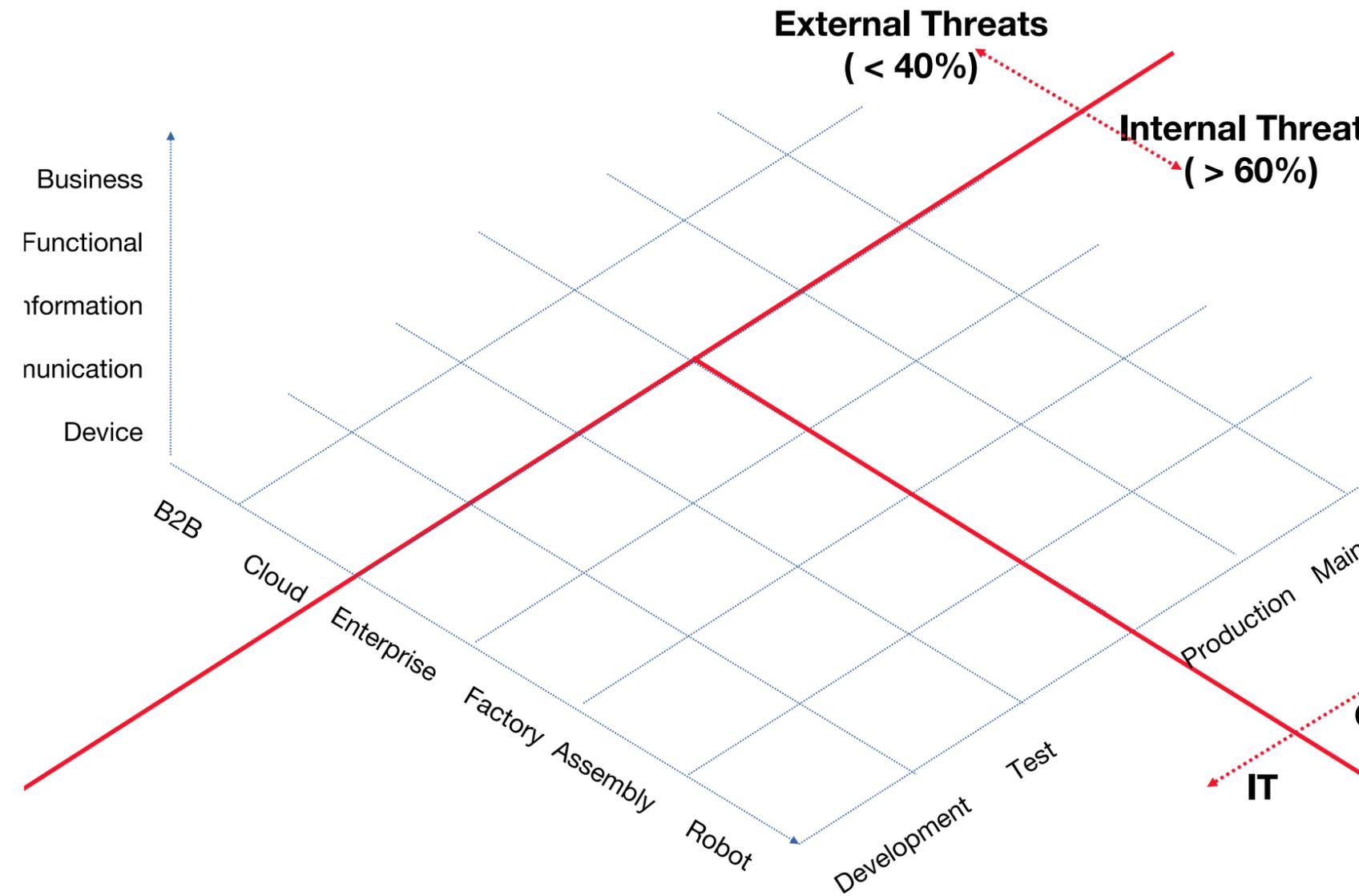
in action

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# Once upon a time ...

I met Eliza and took the chance to chat with her about our Enterprise Architecture

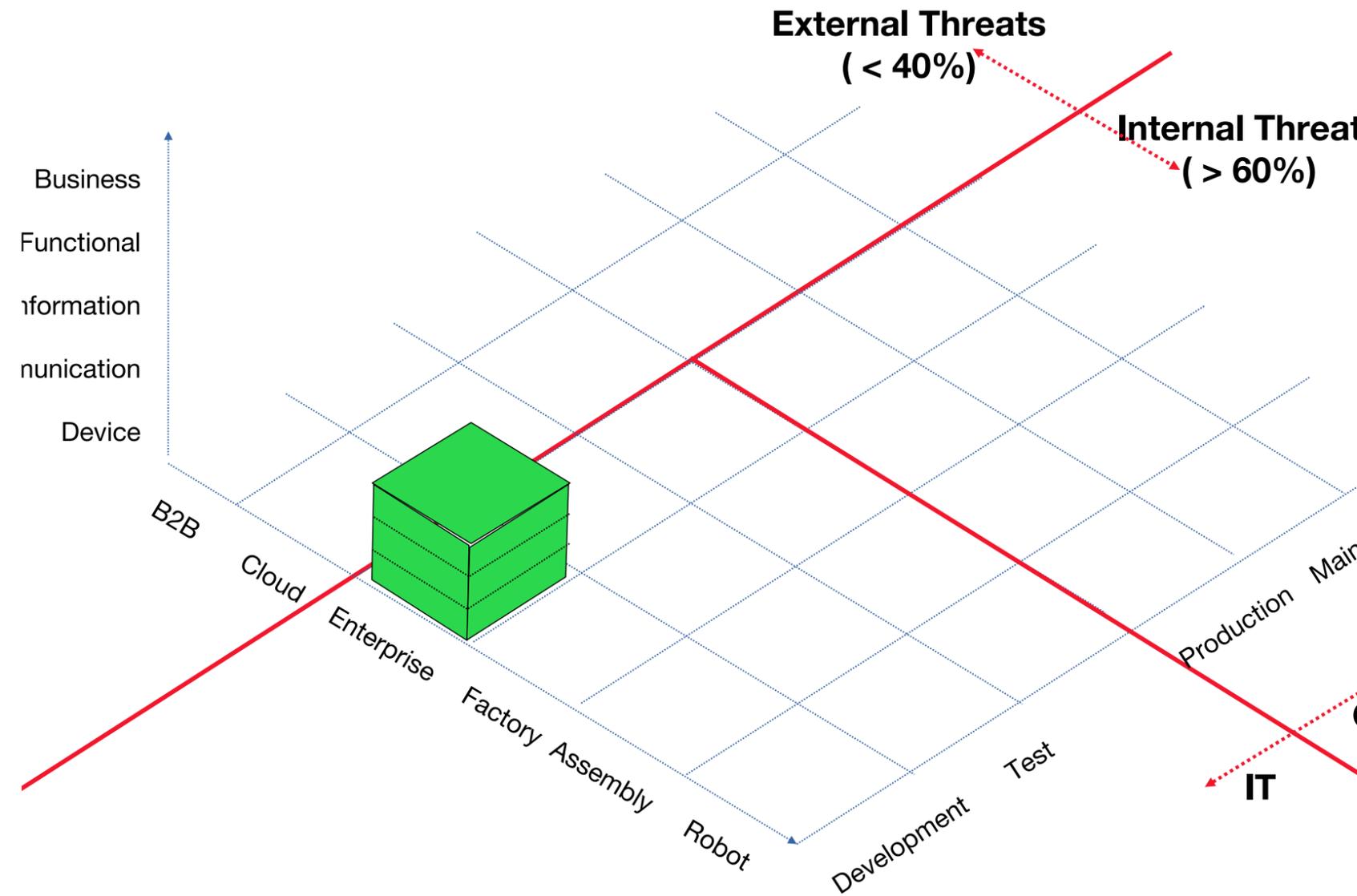


Once upon a time ...

# Where is Marvin ?

I gave him just a few changes to increase efficiency ...

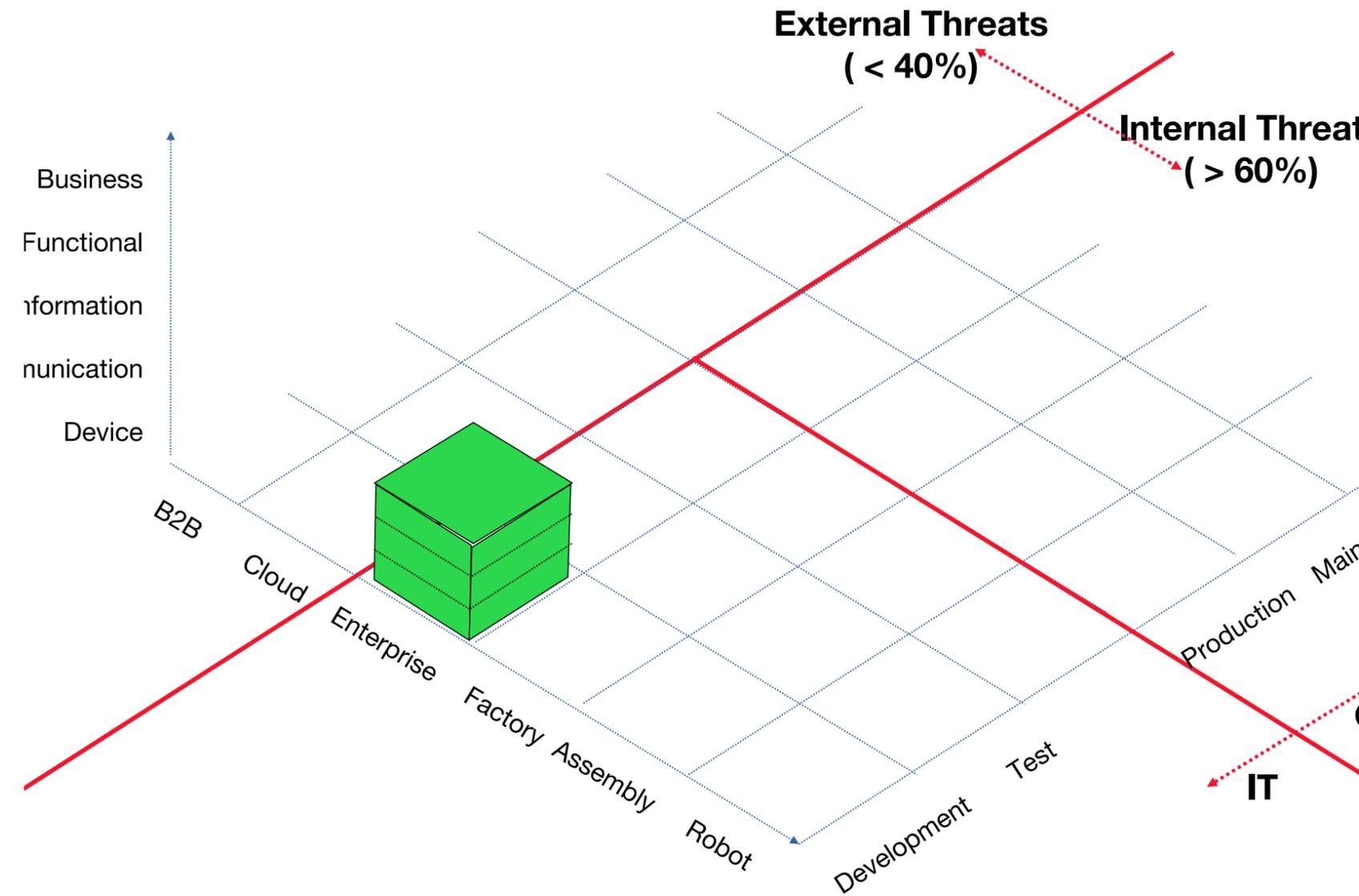
— Eliza



# Marvin's quest

## Just a few changes ...

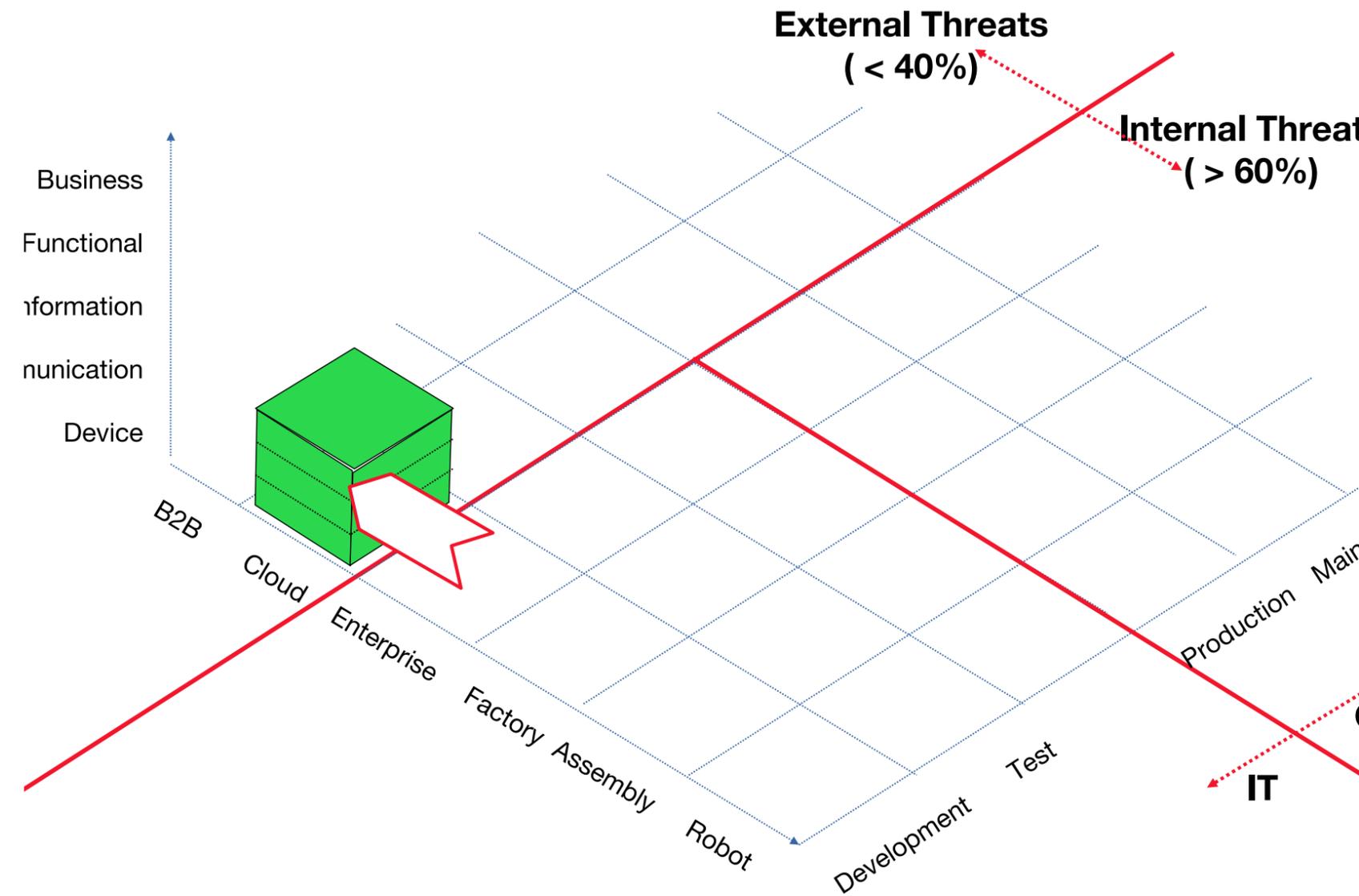
- move some processes to the cloud



# Marvin's quest

## Just a few changes ...

- move some processes to the cloud

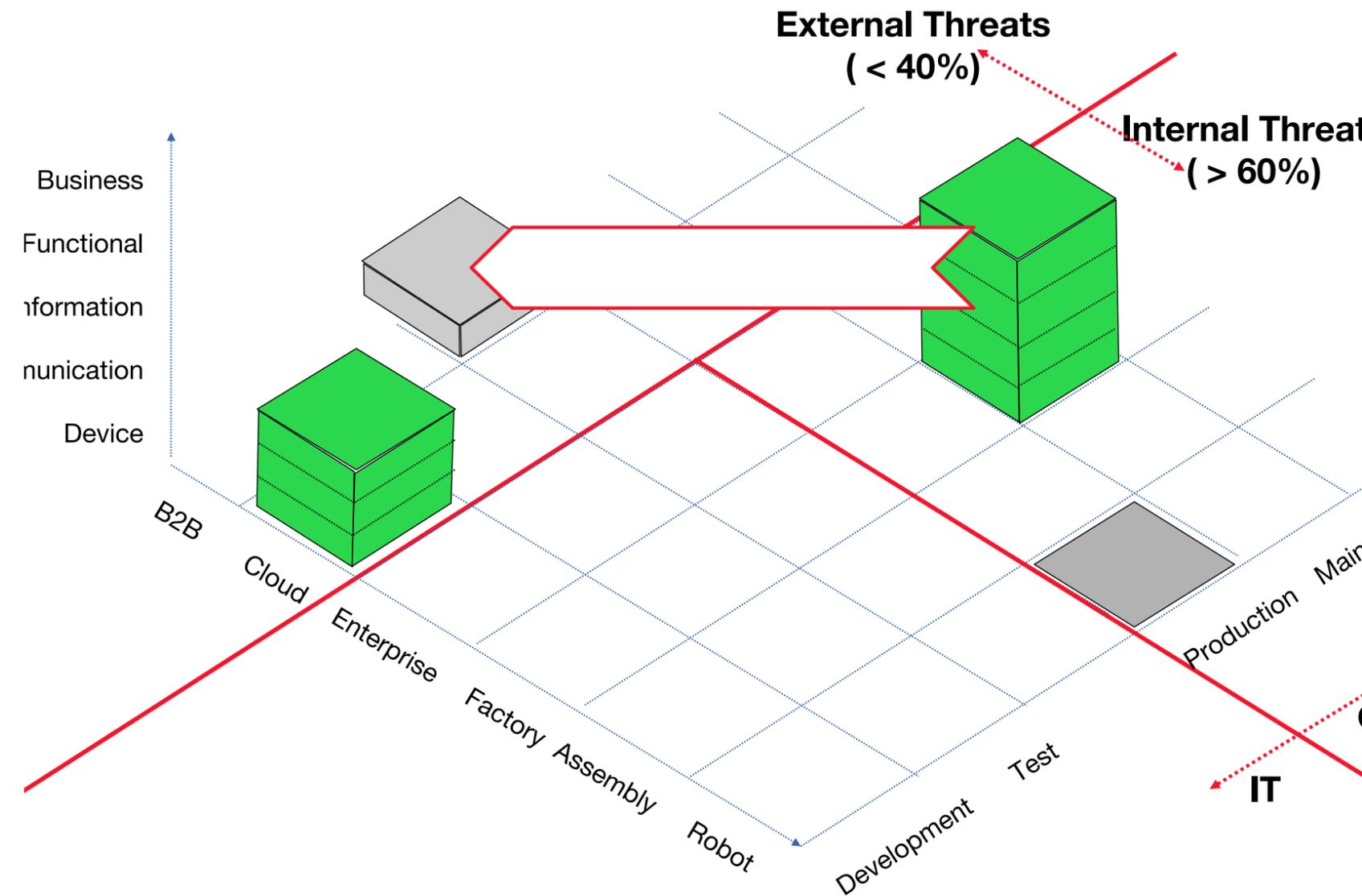




# Marvin's quest

## Just a few changes ...

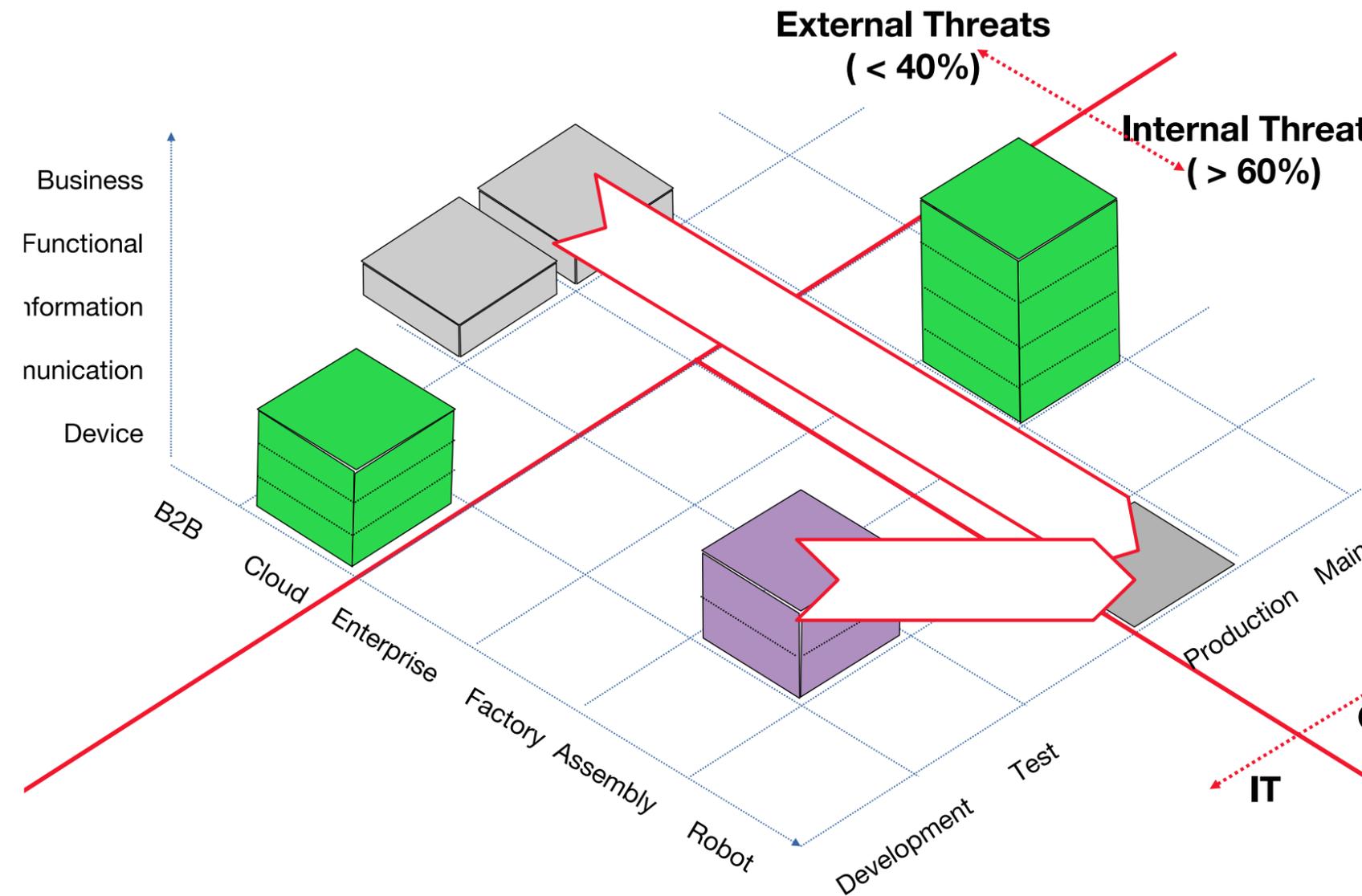
- move some processes to the cloud
- add digital twin sensor data
- add cloud analytics from a service provider



# Marvin's quest

## Just a few changes ...

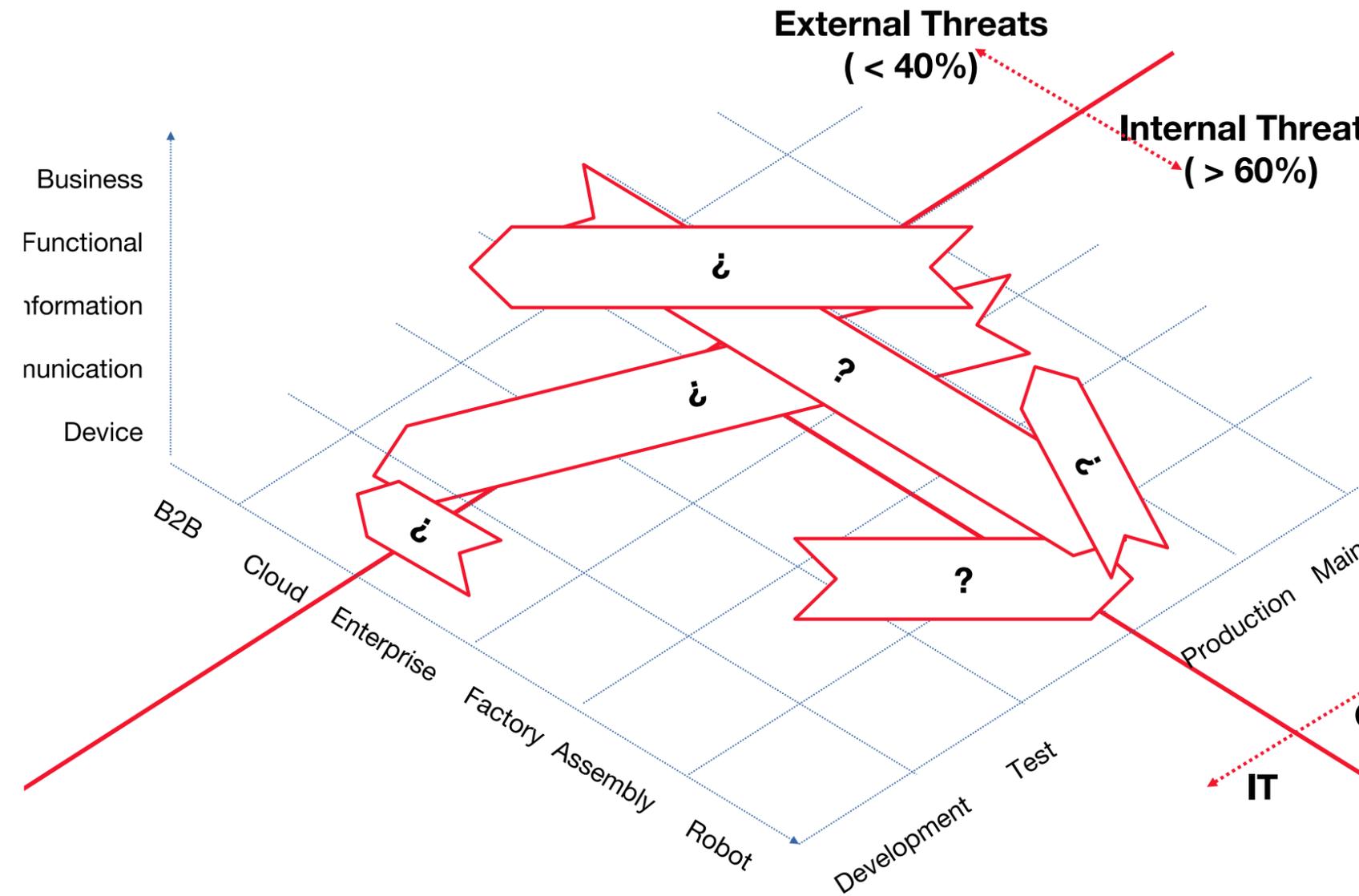
- move some processes to the cloud
- add digital twin sensor data
- add cloud analytics from a service provider
- receive updates from the supply chain



# Marvin's quest

## Just a few changes ...

How long does it take him to apply Elizas changes?

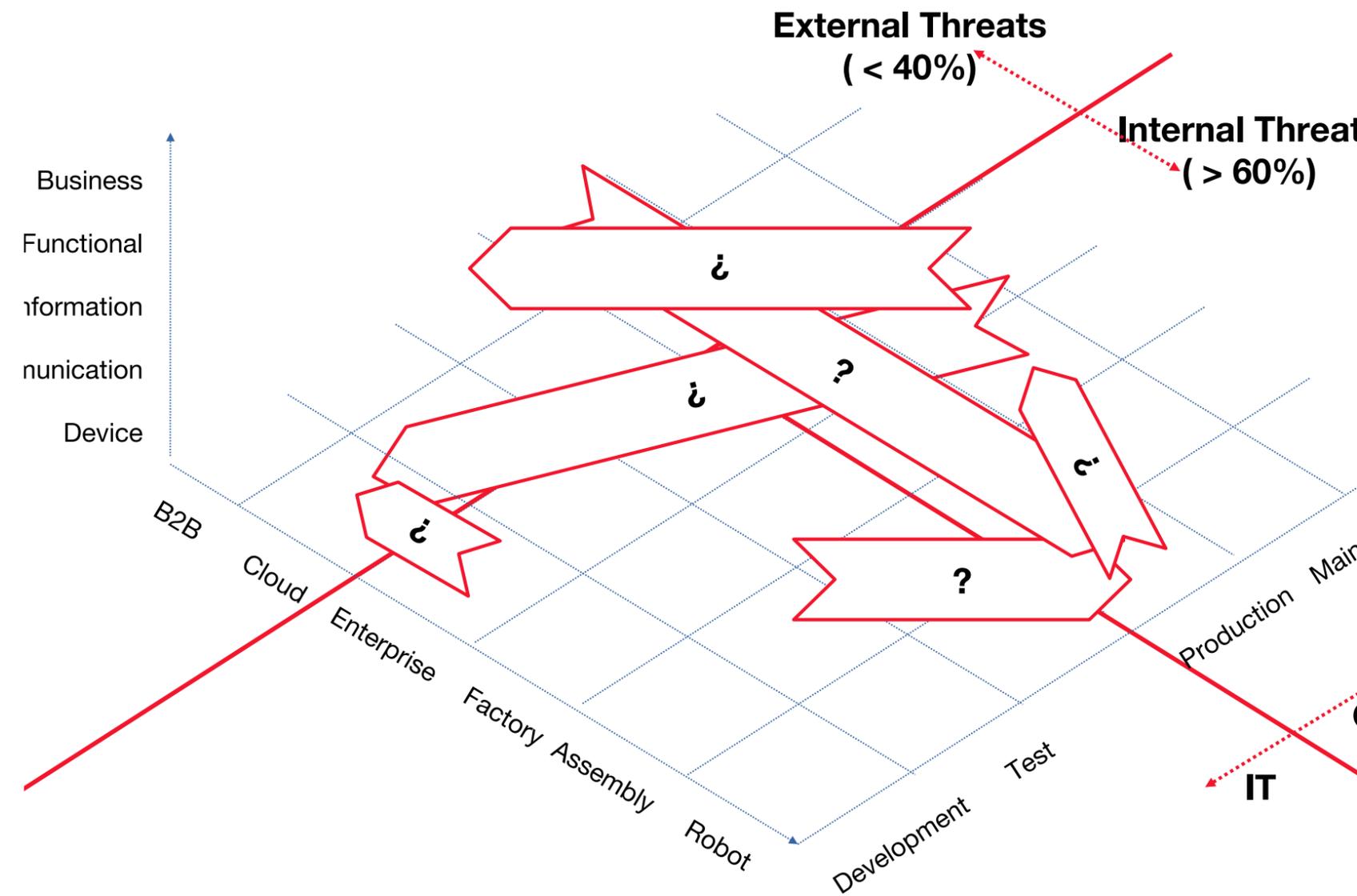


# Marvin's quest

## Just a few changes ...

How long does it take him to apply Elizas changes?

- one week?

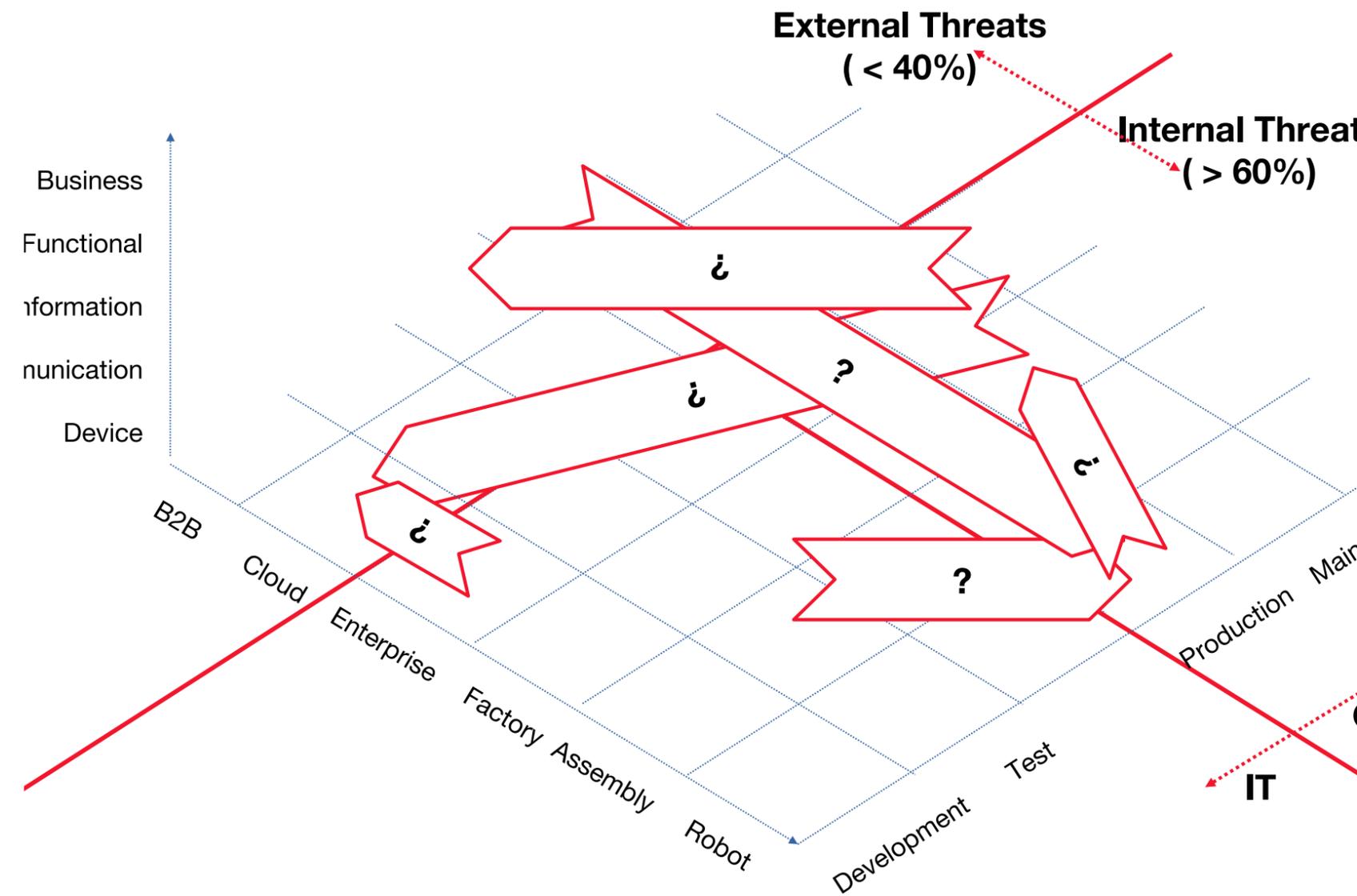


# Marvin's quest

## Just a few changes ...

How long does it take him to apply Elizas changes?

- one week?
- one month?

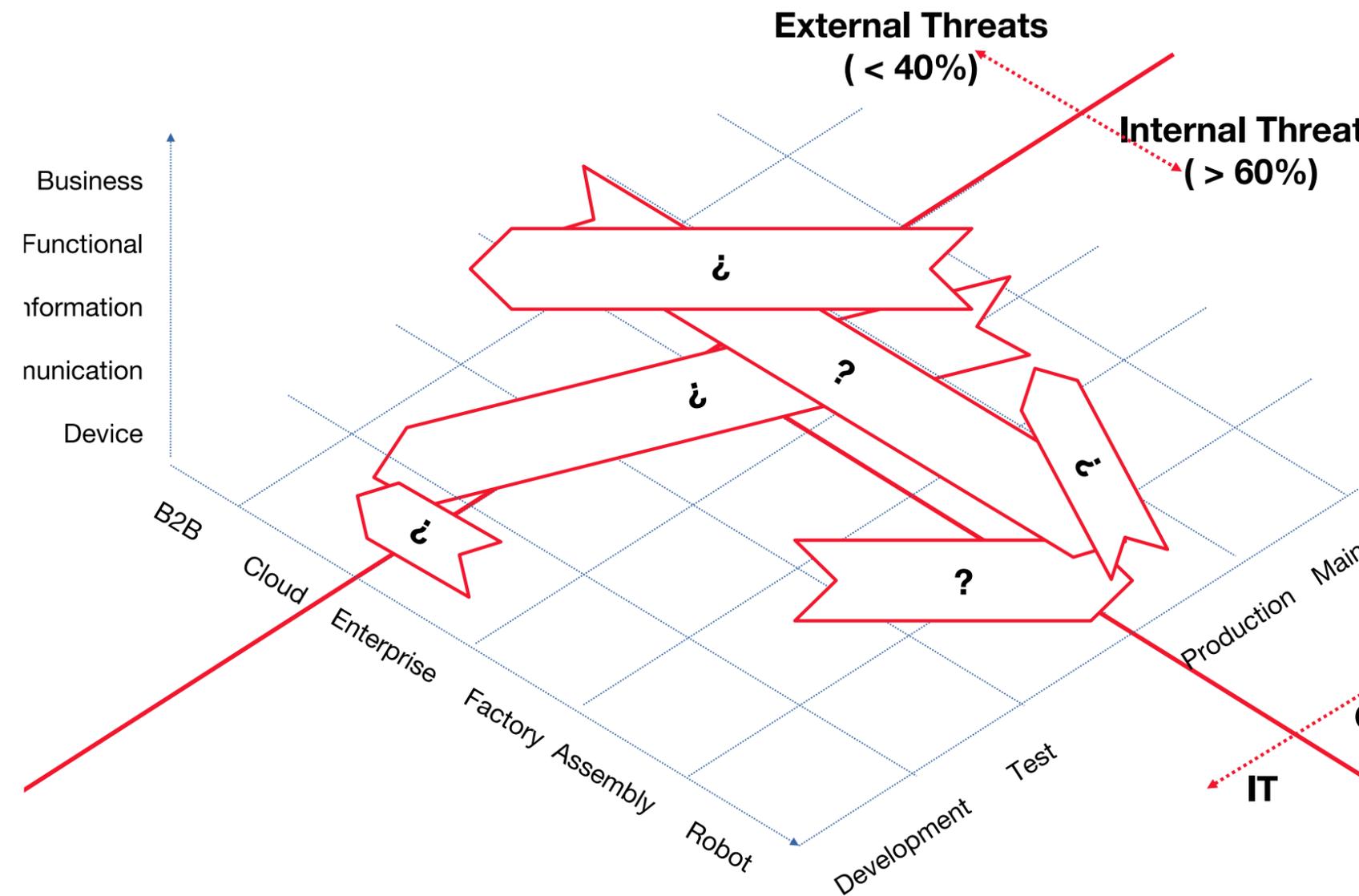


# Marvin's quest

## Just a few changes ...

How long does it take him to apply Elizas changes?

- one week?
- one month?
- one year?

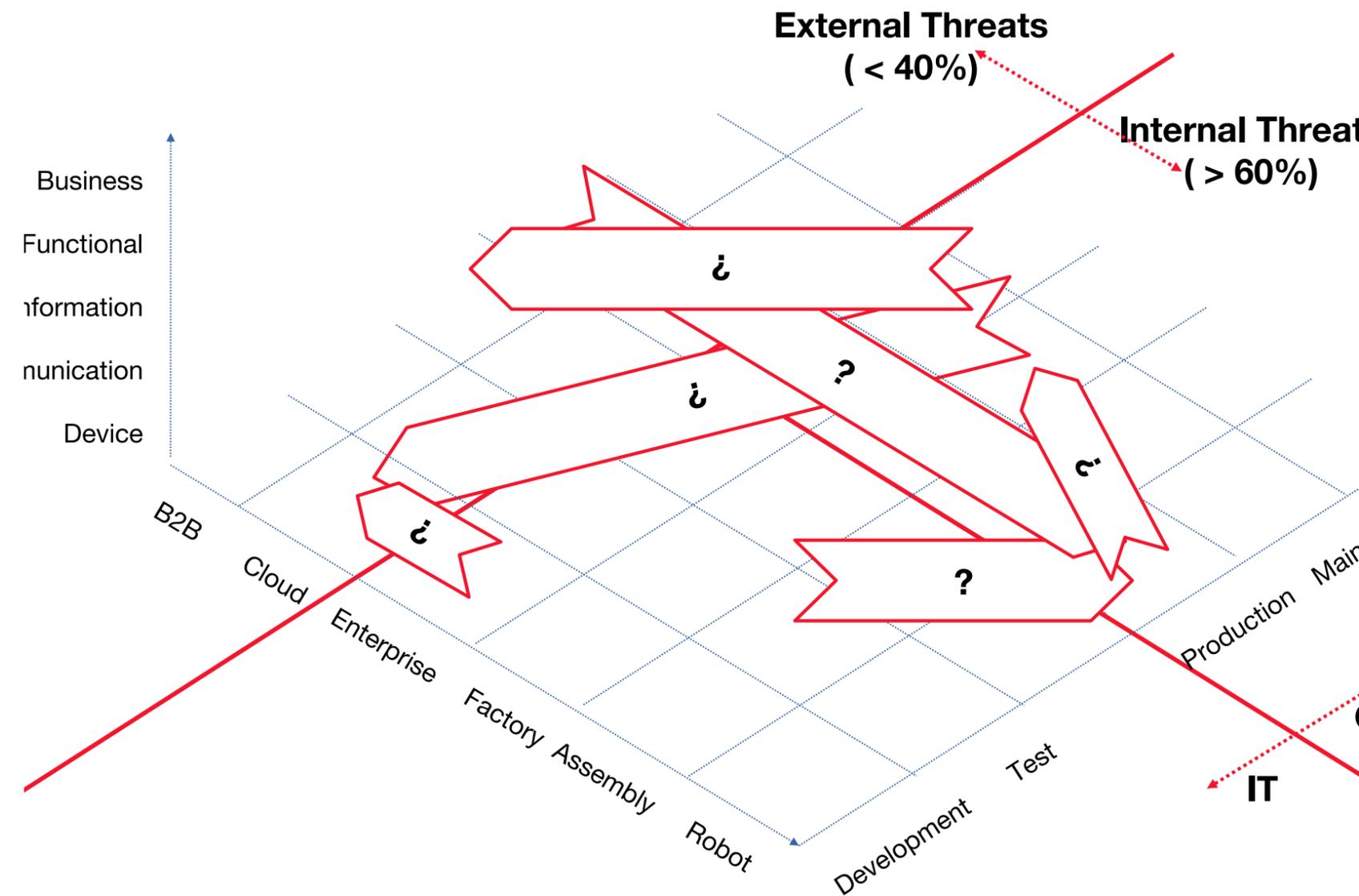


# Marvin's quest

## Just a few changes ...

To ensure **business agility**:

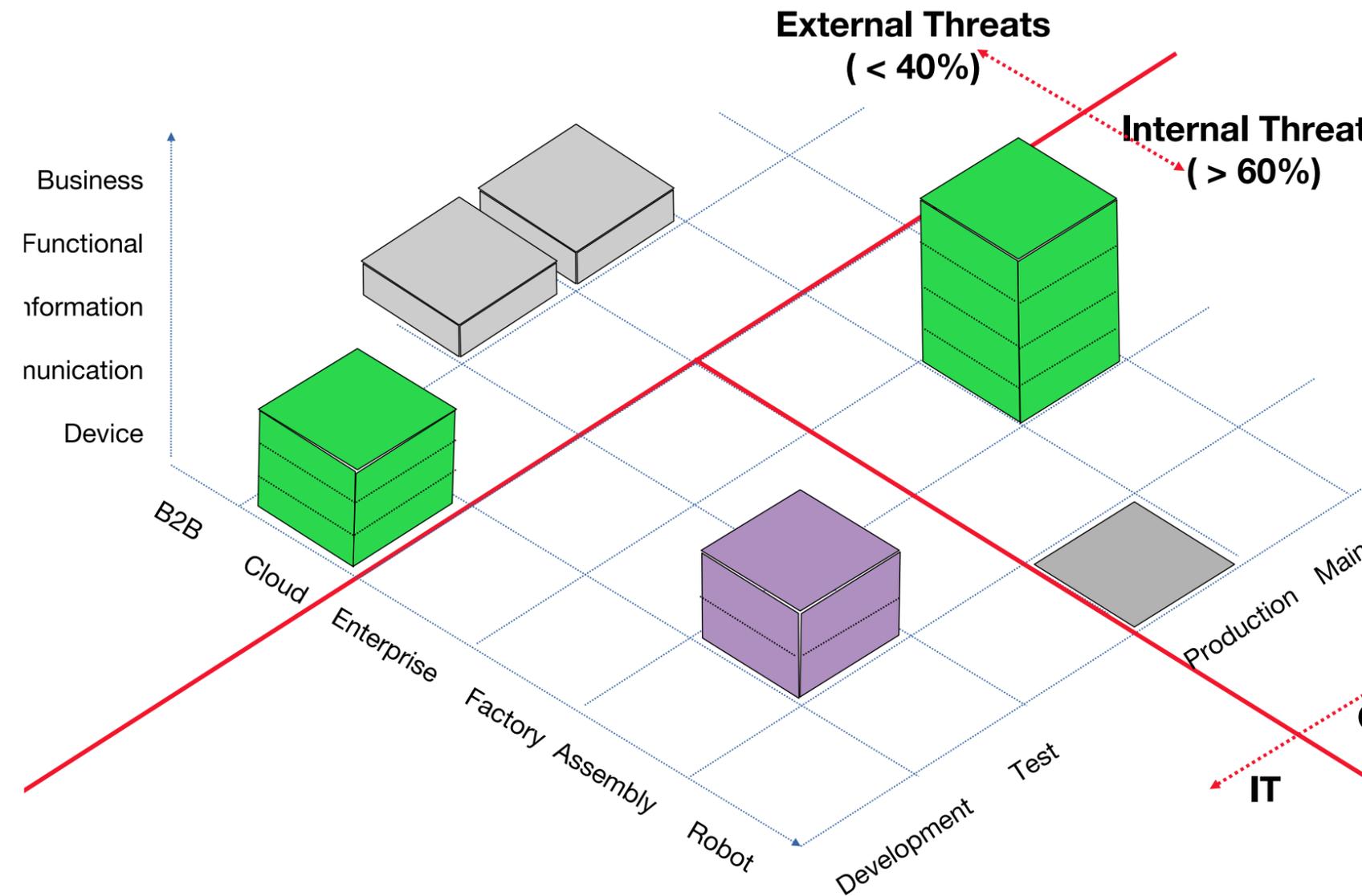
- It should be only one week!
- data object interactions are the driving factor for future architectures
- switch to a different service provider should be easy



# Protect your data

## New paradigms for IT architectures

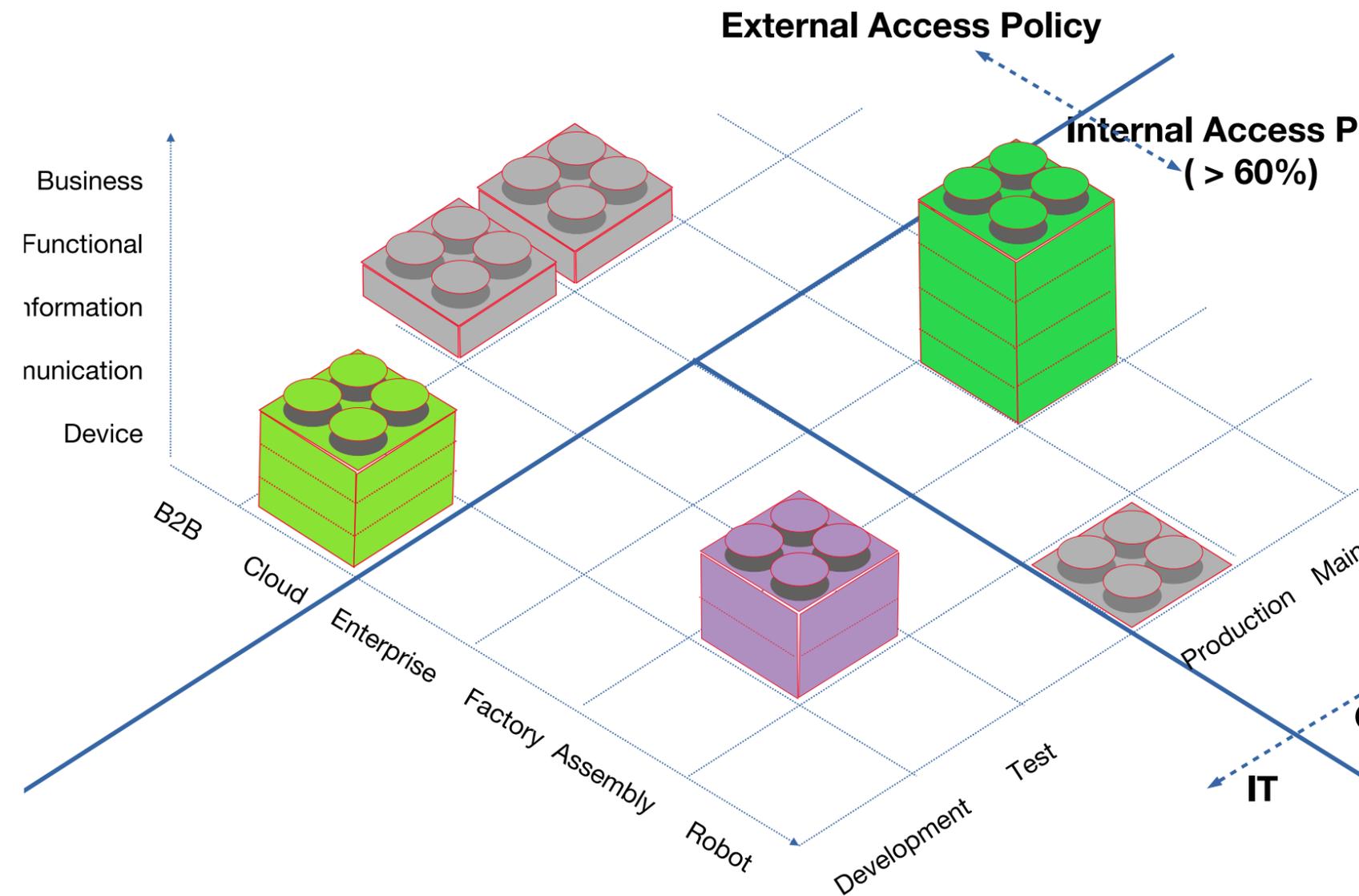
- Trust perimeter has changed!
- fragmented information (flow) needs protection
- respect different data owners per device
- AuthN/AuthZ must be possible everywhere



# Protect your data

## Zero Trust

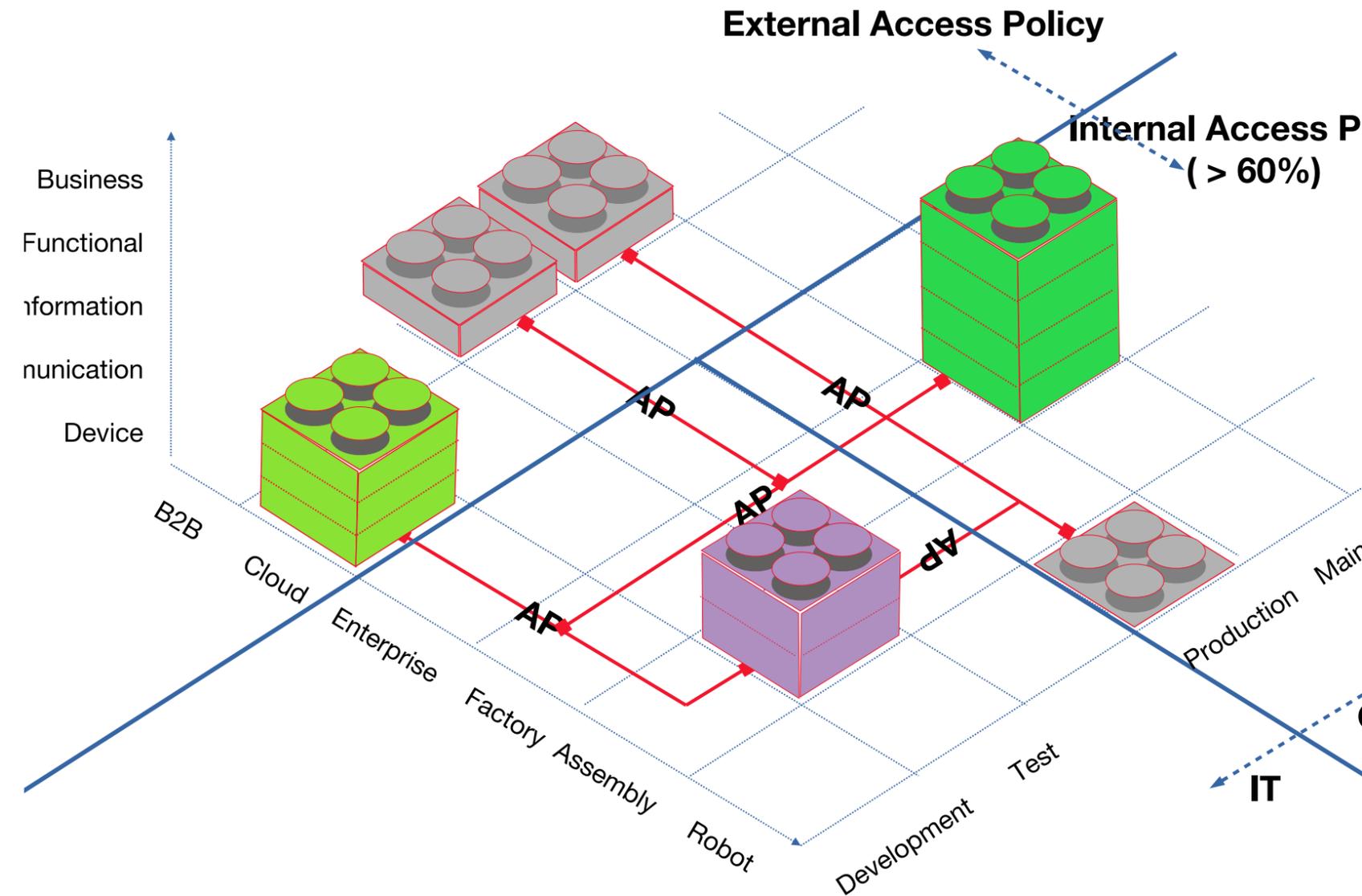
- defines trust levels for data objects / smaller groups
- fine grained access to objects possible
- more insights means minimizing risk
- Never trust, always verify



# Protect your data

## Zero Trust

- Data objects governed by external/internal access policies (AP)
- it is possible to automate the enforcement of AP
- TLS is mandatory, but unsuited to express AP



# Protect your data

## Zero Trust

means: please avoid the security gateway

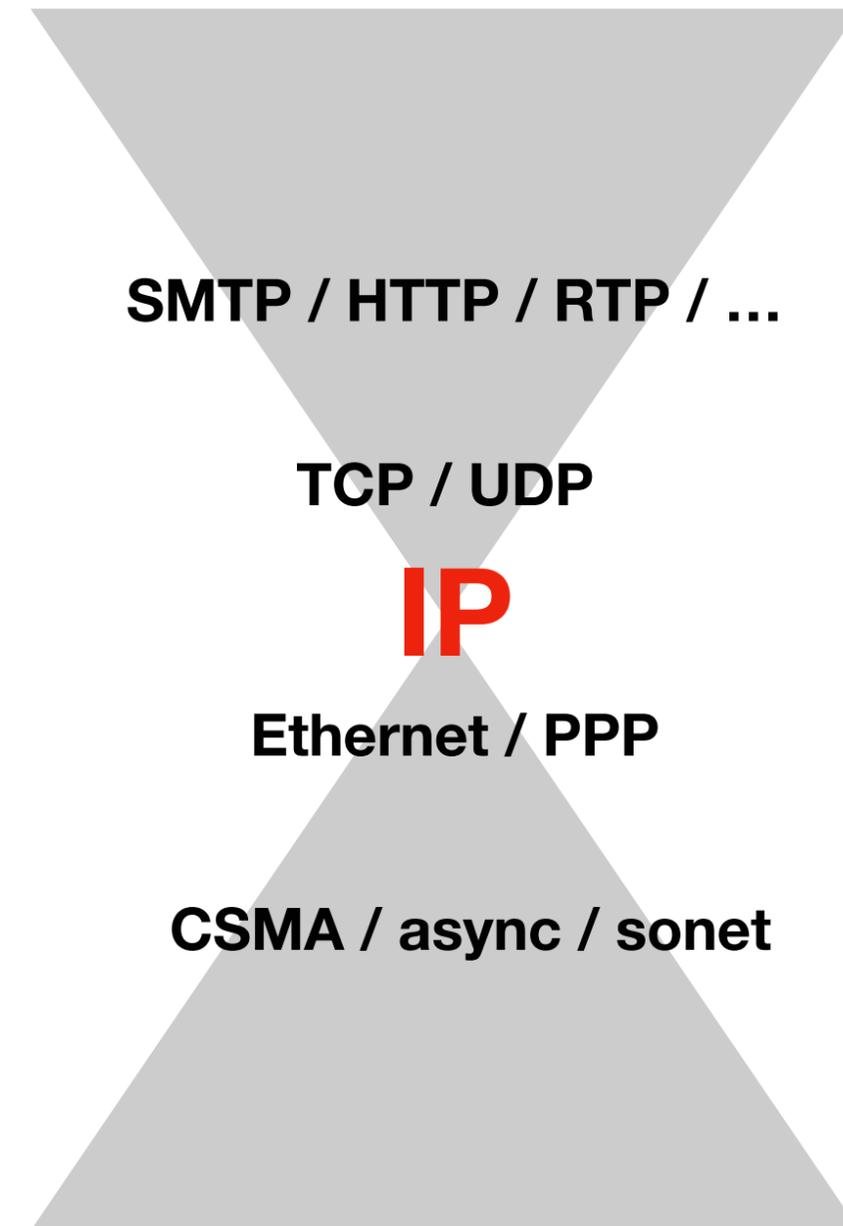


Sergei Gutnikov CC BY-SA 3.0)

## Protect your data

# Named Data Networks

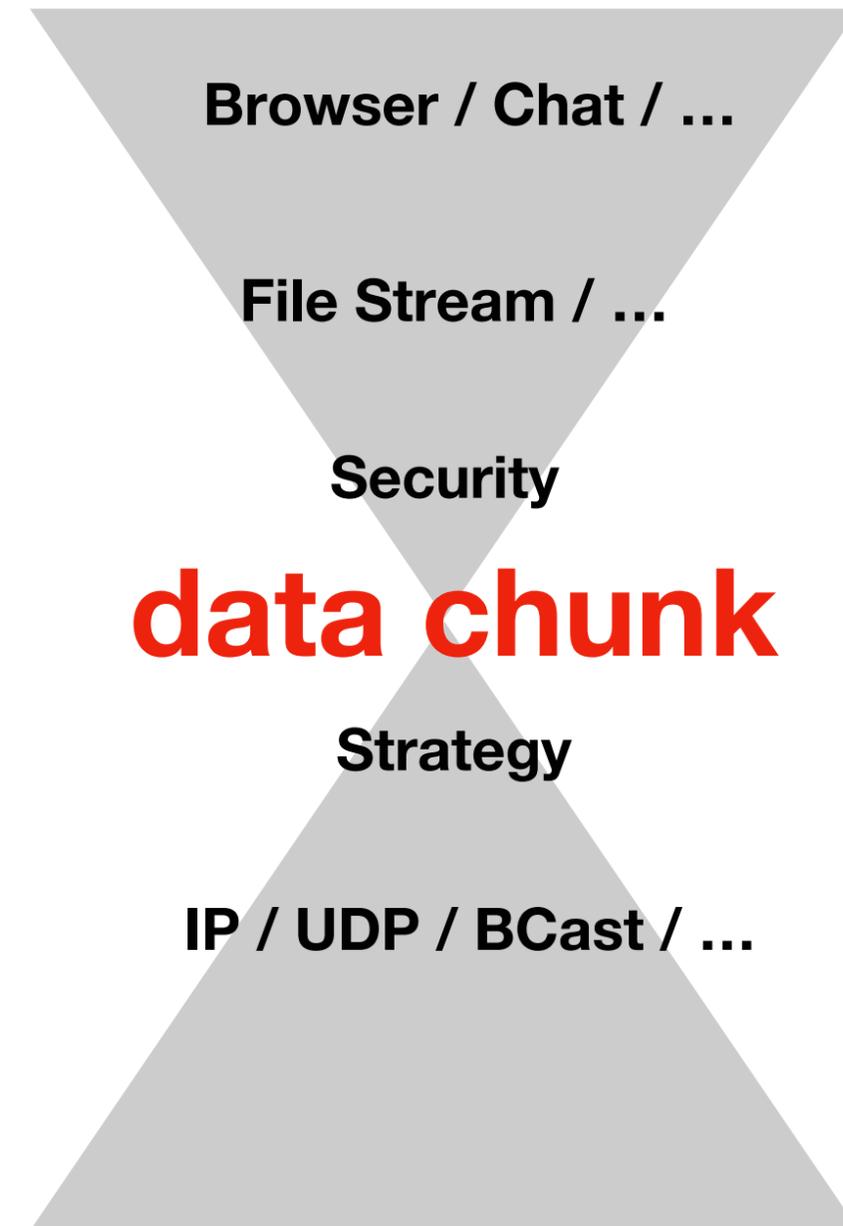
- old "hourglass" model is IP based
- IP addresses used as an abstraction layer
- unsuited for today's content-centric world



## Protect your data

# Named Data Networks

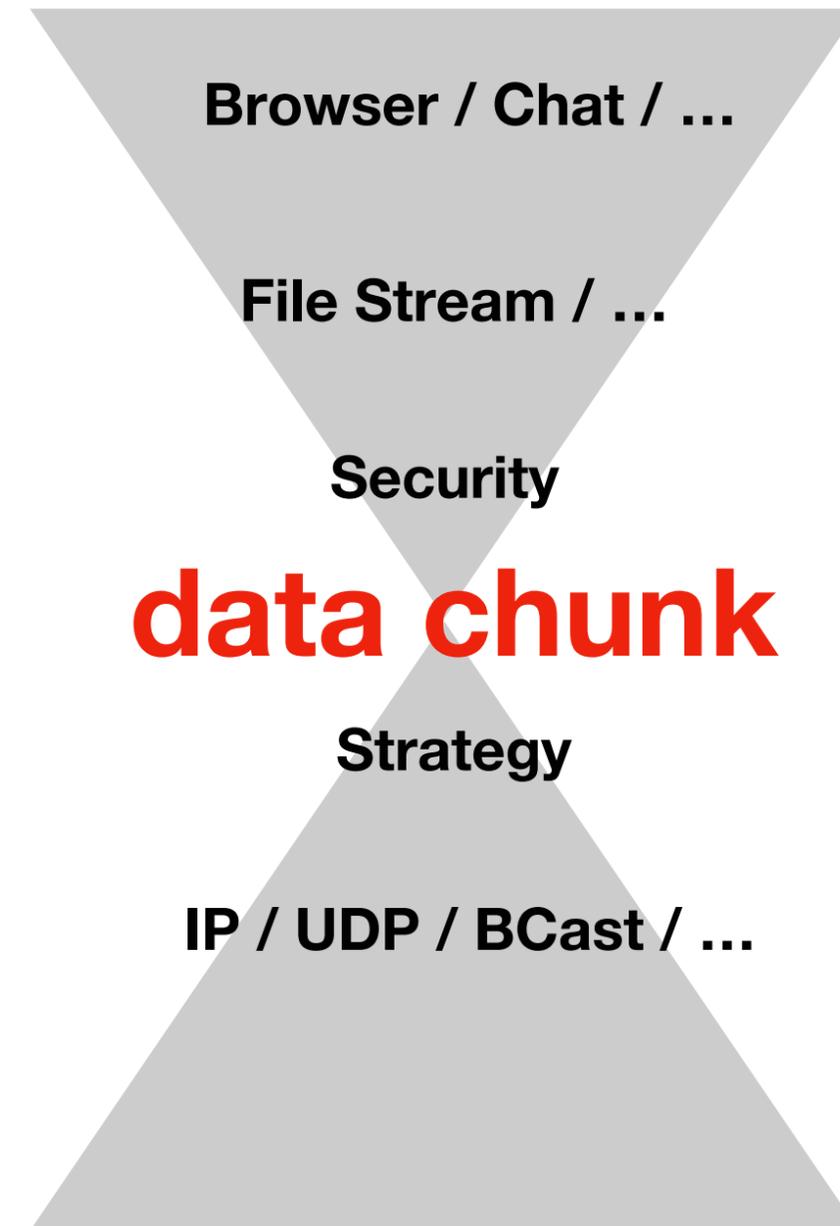
- new "hourglass" abstraction level: data (chunks)
- data chunks identified by resource name
- security becomes a first citizen membership
- ownership of data is always clearly



## Protect your data

# Named Data Networks

- integrity is easy, but what about confidentiality?
- multi-party encryption mandatory?
- even more projects: COAST, XIA, MobilityFirst, ...
- a security comparison is available



**All lived happily after!**

# **Eliza & Marvin**

are still in action ...

Thank you for your attention!

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