

Going beyond Shift-left:

Platform Acceleration with Pre-Silicon Prototyping Solutions

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Shift in Computing



Servers



Desktops



Laptops

to



Tablets



Micro-Servers



Wearables



Phones

Long Lead-Time
(General Purpose Solutions)

Highly Time-Sensitive
(Customized Market Solutions)

- First, need planning/arch/design teams which are very agile...
- And, prototyping solutions that match this new reality

Computing's New Value Vectors

- Computing has traditionally evolved on the back of performance & density
- While still important, need ecosystem to understand new value vectors and help the industry achieve and overcome these challenges:

1
New level of **flexibility** required – From high performance servers to wearable's

2
Wide range of volumes & margins for same or similar designs

3
Market mandated **refresh rates** coupled with the tension for a need to deliver cutting edge IP's

REAL
REAL

SoC Companies Seek...

...Strong **multi-segment** participation

Server

Mobile

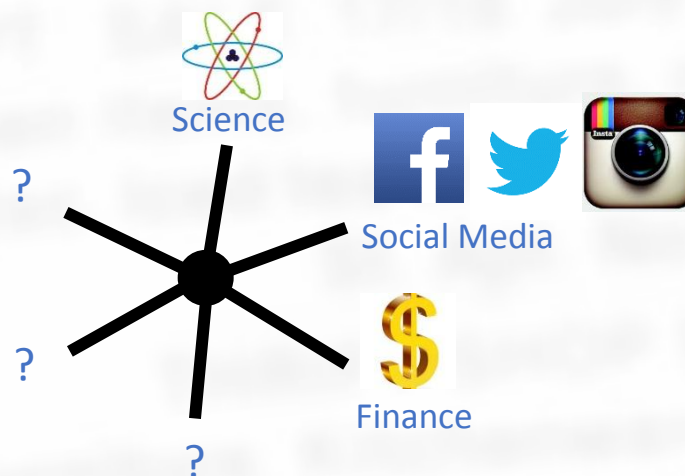
Phone Tablet

Embedded

Internet of Things

...Reduced
**Time-to-
Market**

...To capitalize
on opportunities for
specialization
(varying use models)



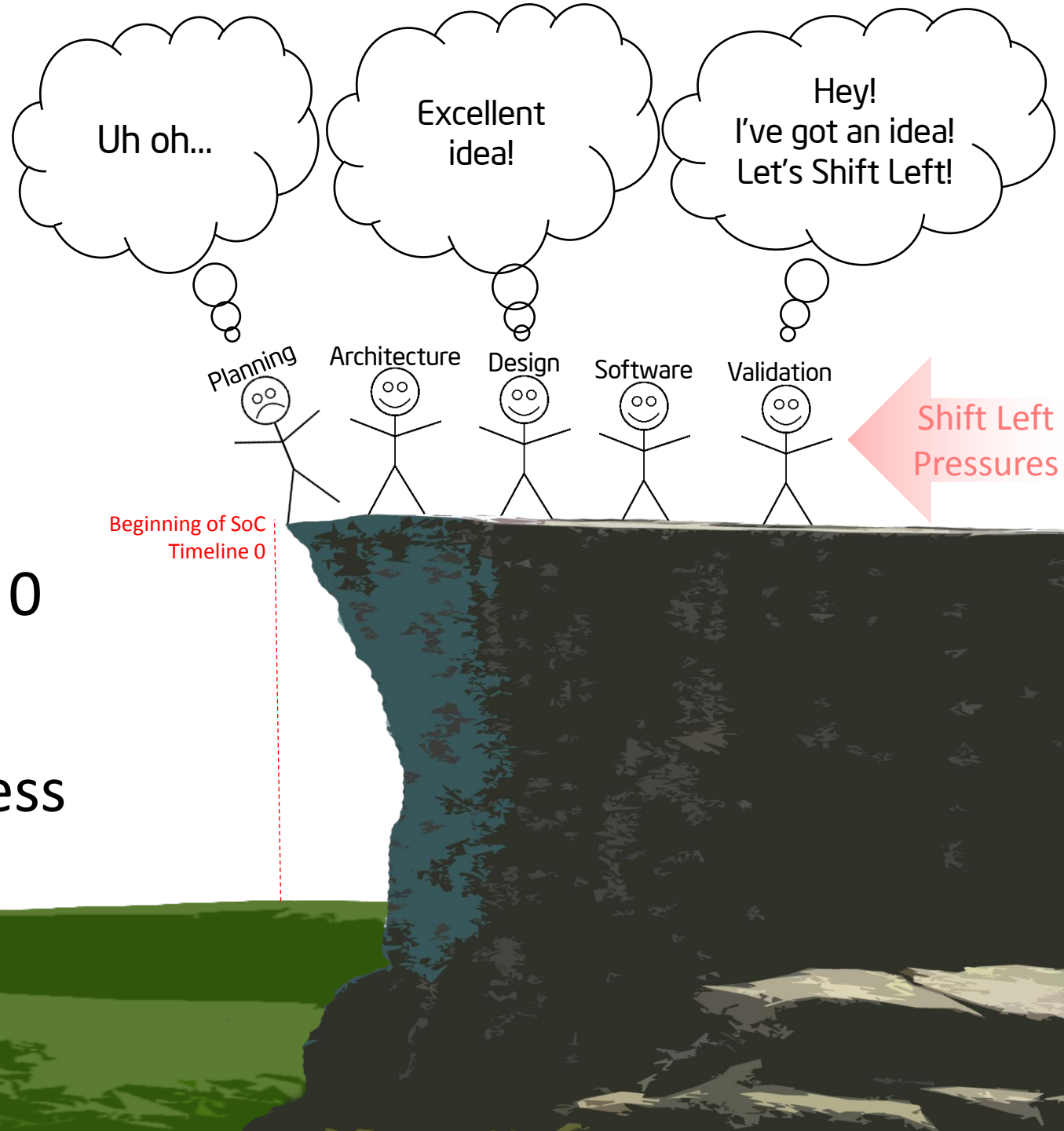
Design concept to
productization

Shrink Time-to-Market (TTM)

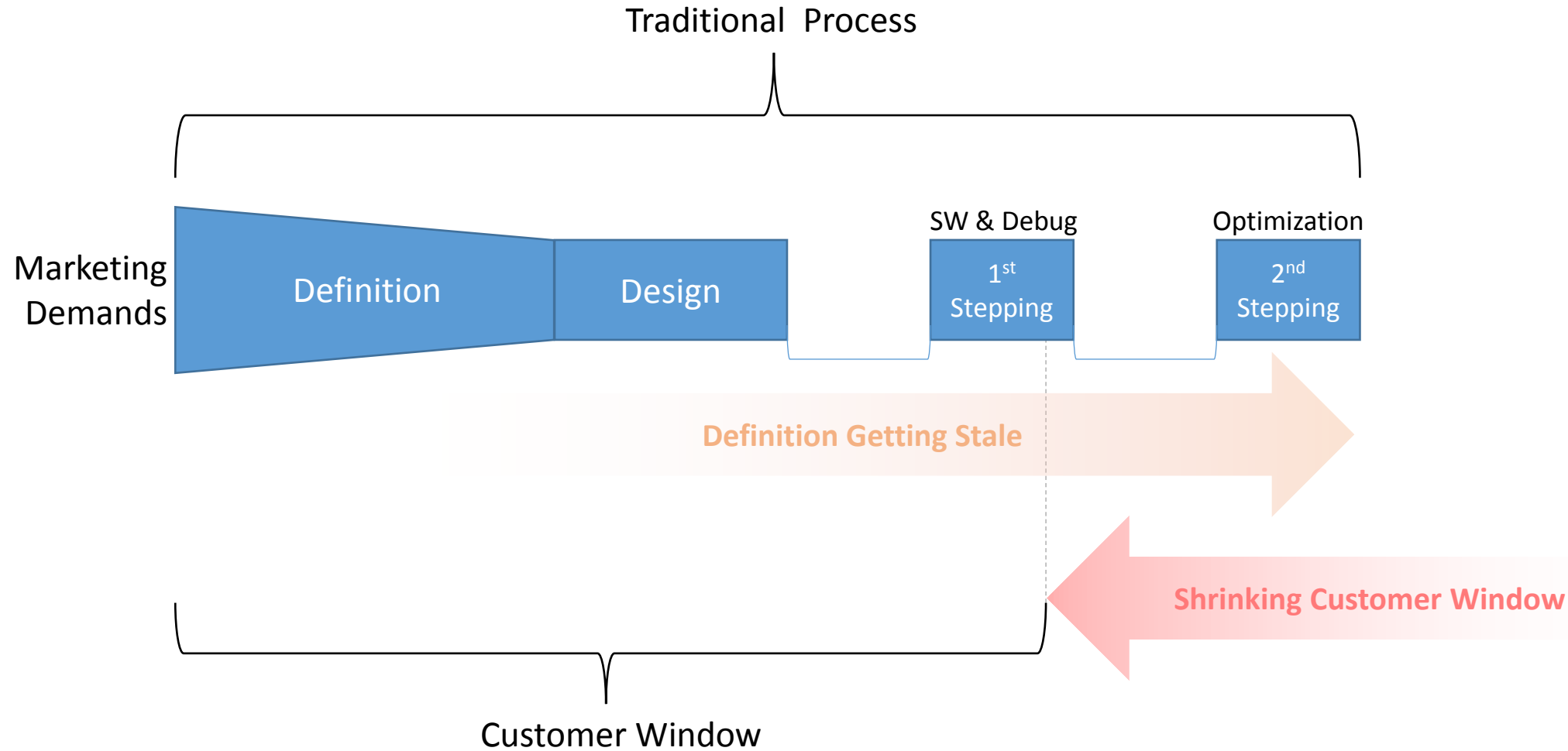
Shift Left works...
But only to an extent

Can't "Shift Left" before time 0

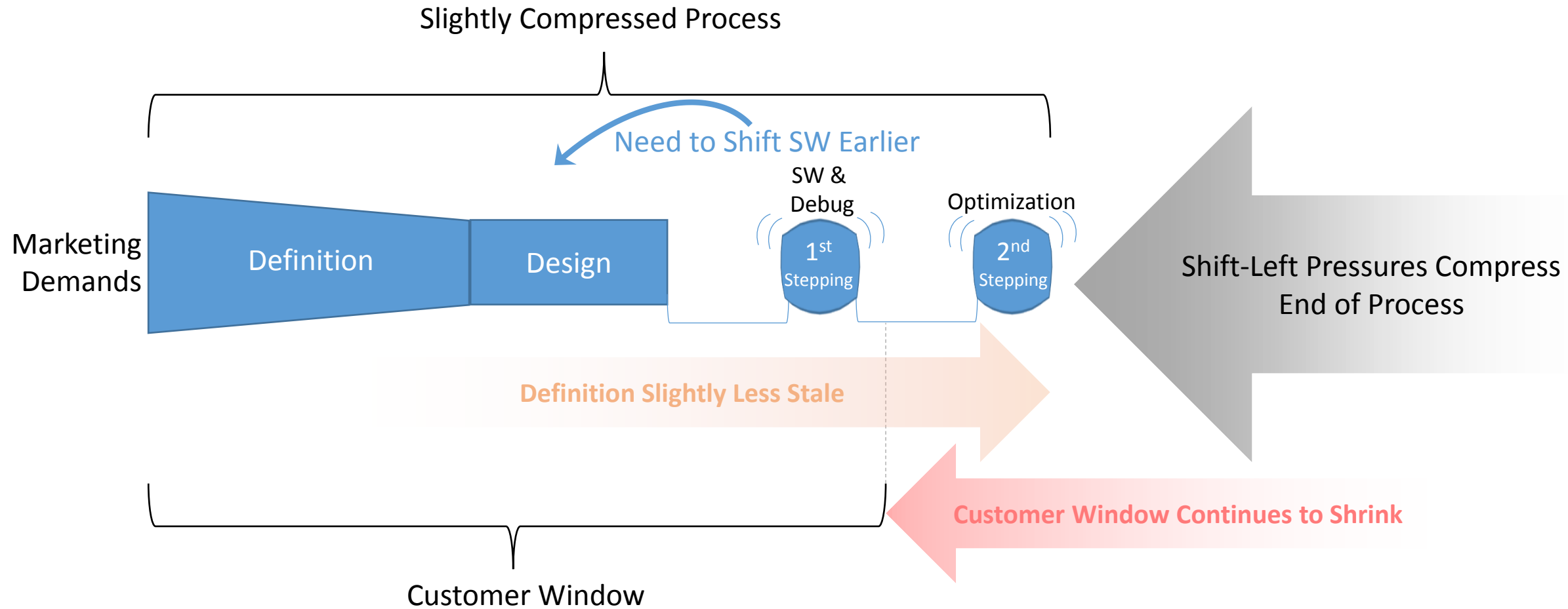
We need to Rethink the process



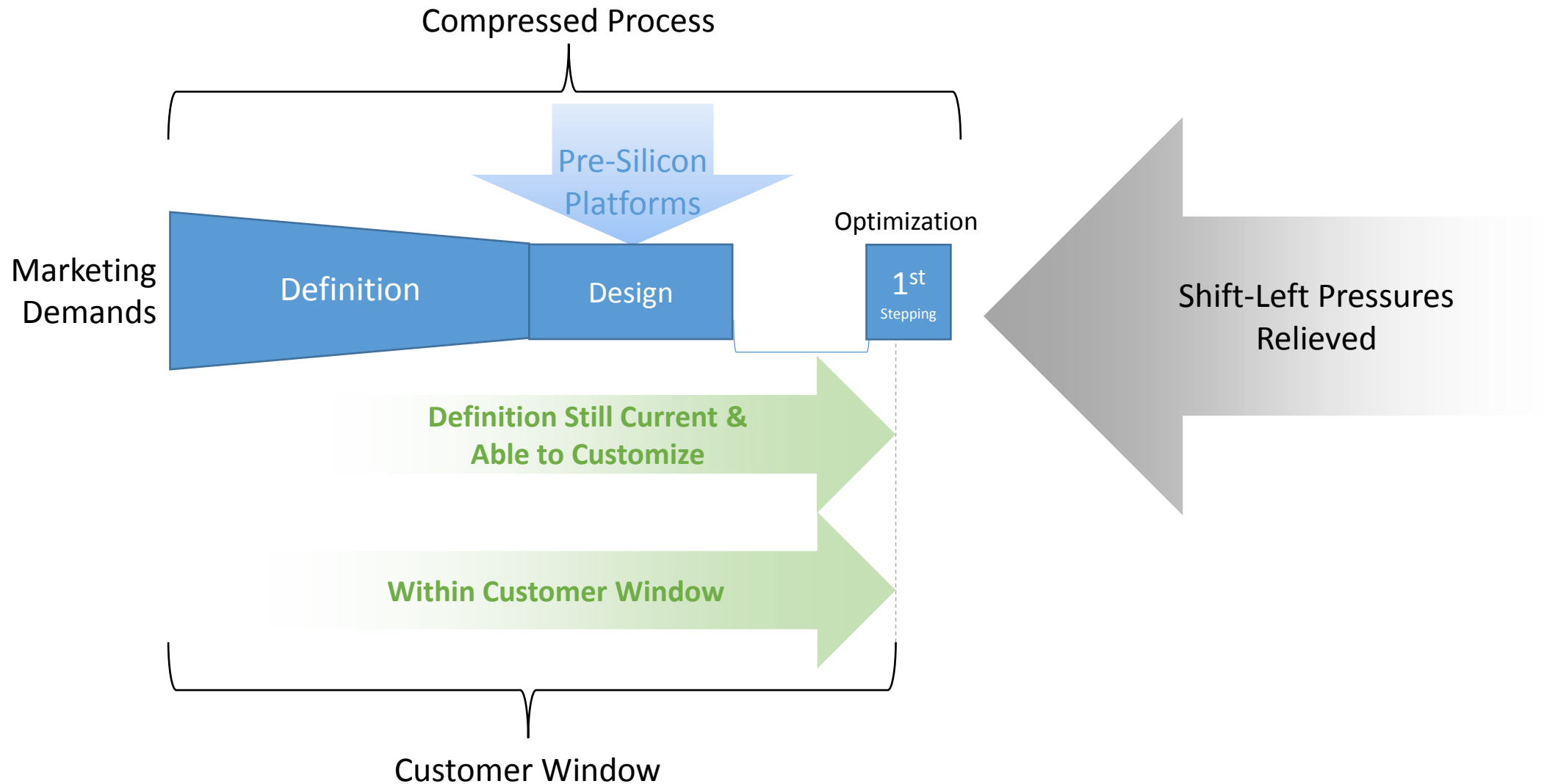
SOC Process: Traditional



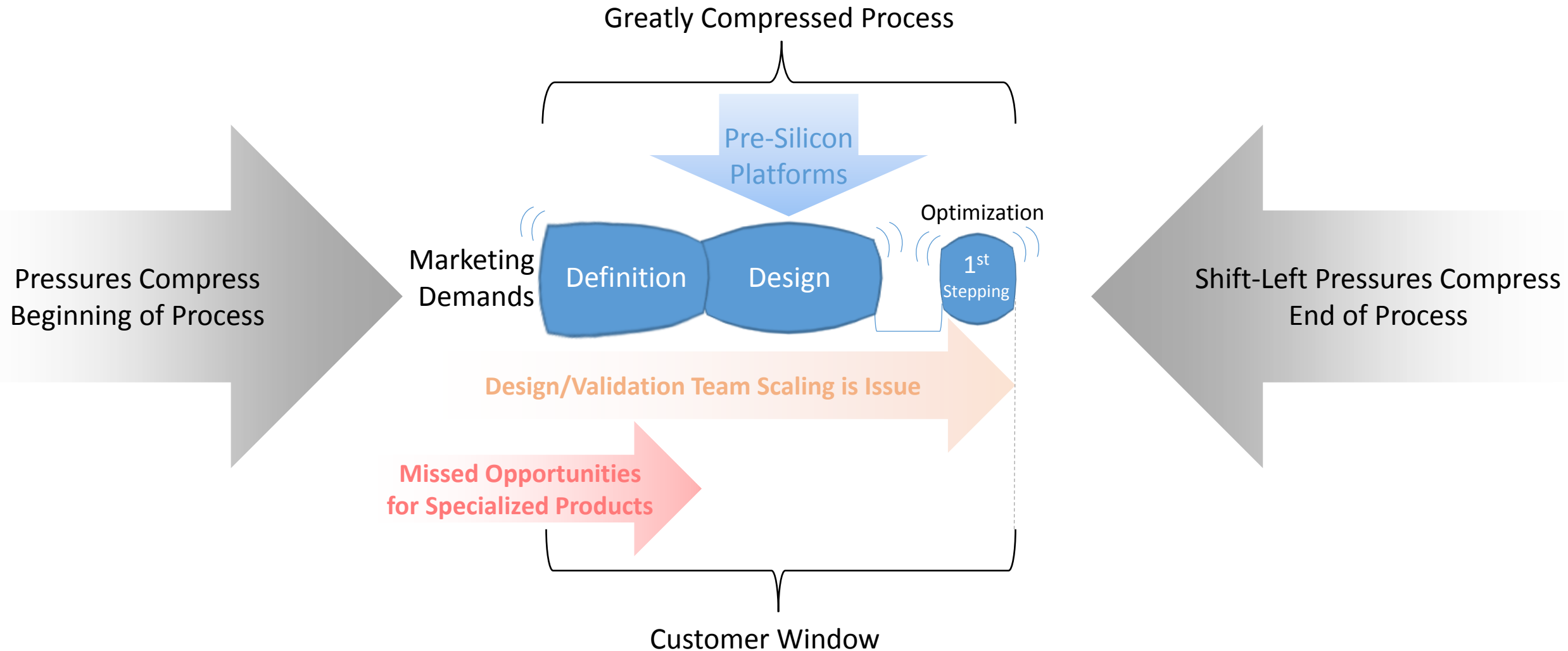
SOC Process: Need to Shift Left



SOC Process: Shift Left via Pre-Si Platforms

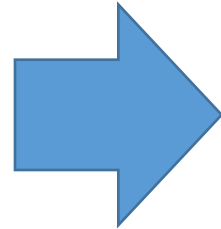


SOC Process: Breakthrough Needed



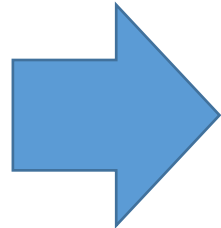
Meeting the Values Vectors...

1 New level of **flexibility** required – From high performance servers to wearable's



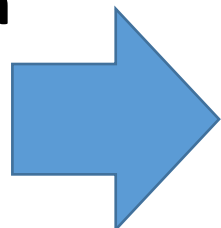
Need solutions and standards that enable seamless reuse from IP through Software (e.g., drivers to validation content to manufacturing test)

2 **Wide range** of volumes & margins for same or similar designs

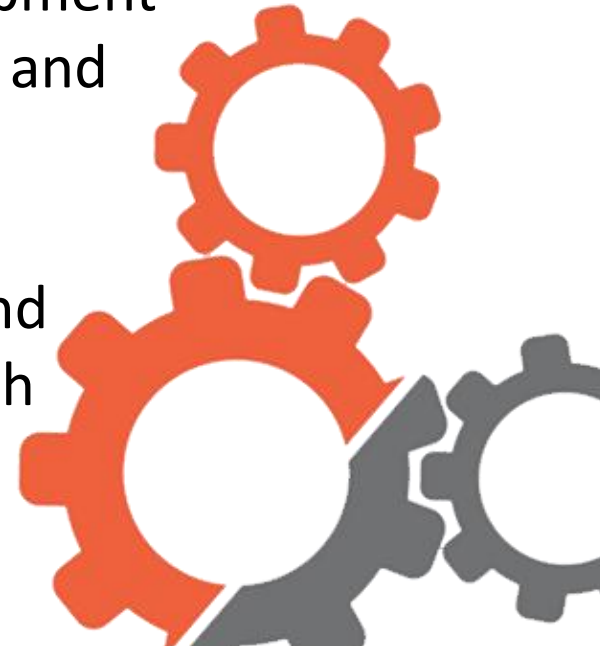


Need solutions that fit the development investment for varying cost points and complexity

3 Market mandated **refresh rates** coupled with the tension for a need to deliver cutting edge IP's



Need solutions which help Arch and design be more agile (e.g., fast arch exploration/prototyping through validation phase)



CHALLENGE

How will you drive transformation to deliver on these value vectors?

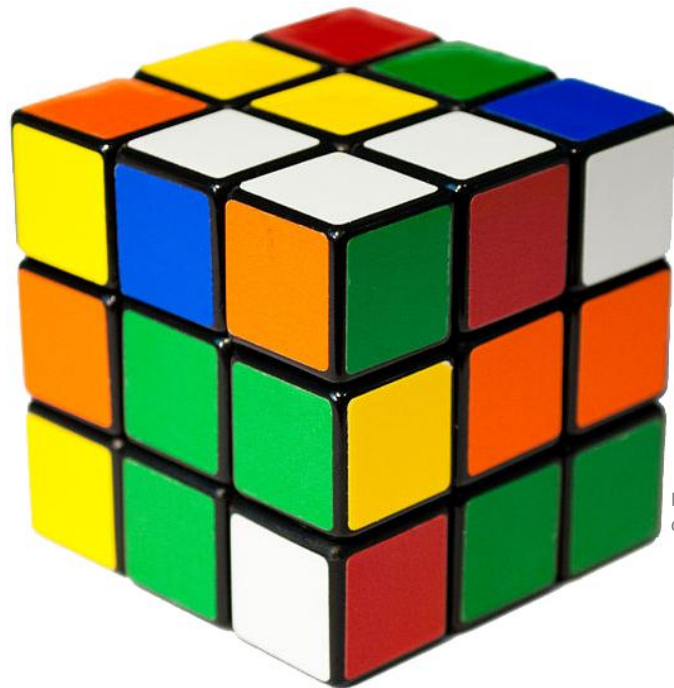


Image courtesy
of Acdx

Thank You

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