Managing Our
Software Release Process

From Ideas to Products

Hossein Raassi
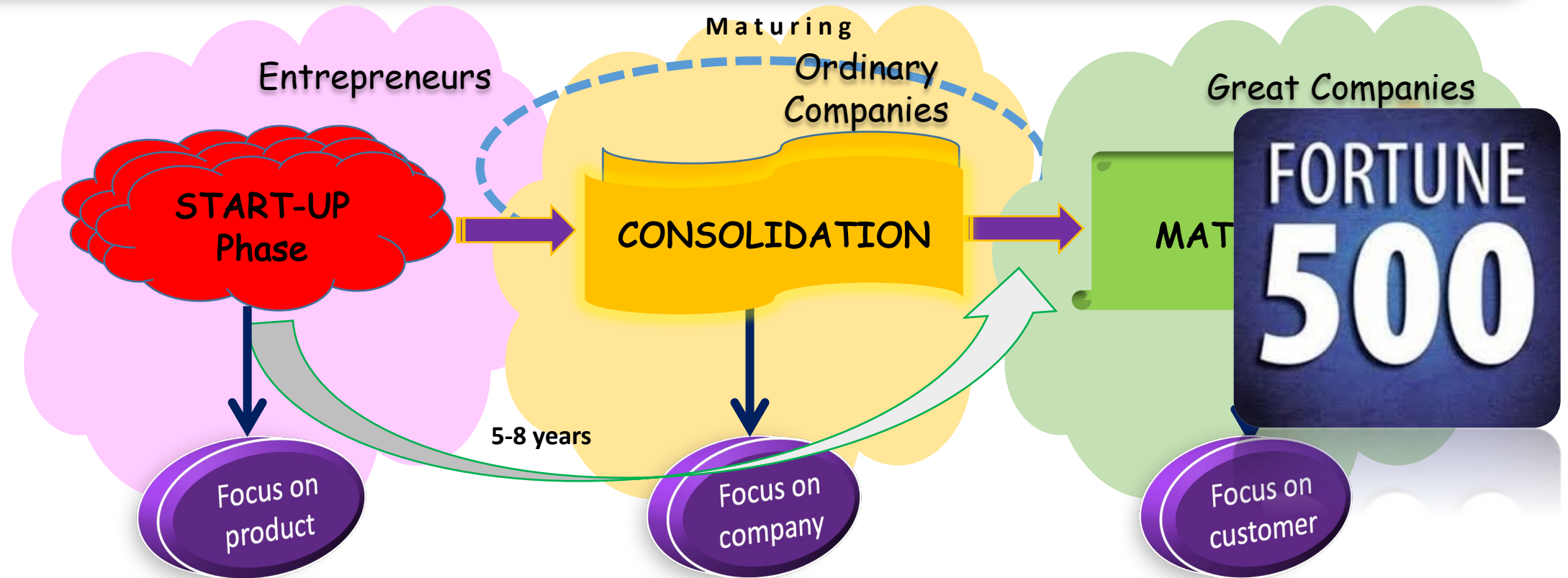www.raassico.com

Presentation Highlights

- What is this 'thing' called release management? And why should you care?

- How do we 'manage' our software releases?

- What has release management got to do with the 'survival' of your company?

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Lifespan of a software compan

The Silicon Valley Model

Maturing

Entrepreneurs

Ordinary Companies

Great Companies

START-UP Phase

CONSOLIDATION

MAT

FORTUNE 500

Focus on product

5-8 years

Focus on company

Focus on customer

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Lifespan of a software compan

The Silicon Valley Model

Entrepreneurs

START-UP Phase

An idea	A prototype	Proof of concept
A few individuals	Key personnel	A few managers
A little cash	Some more cash	Outside investment

Your Assets
- Some IP
- A team
- Limited finances

Your Liabilities
- Financial
- Opportunity cost
- Competition
- Time bomb (RAT)

Lifespan of a software compan

The Silicon Valley Model

Entrepreneurs

START-UP
Phase

Your Assets

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Financial

Opportunity cost

Competition

Time bomb (RAT)

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Economically speakin

BANKRUPT

bright**IDE**

...mpty **SHELVES**

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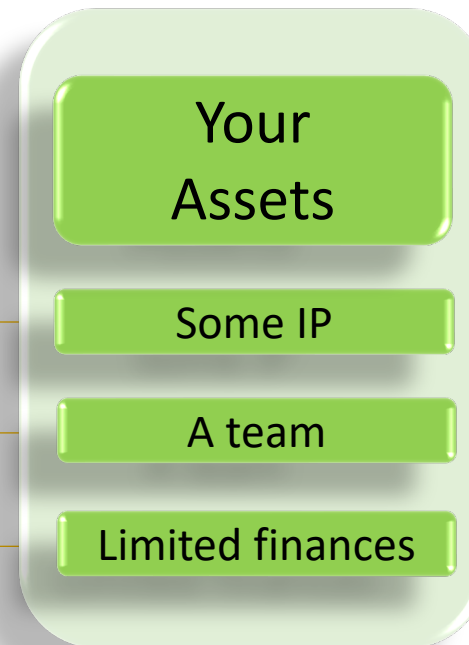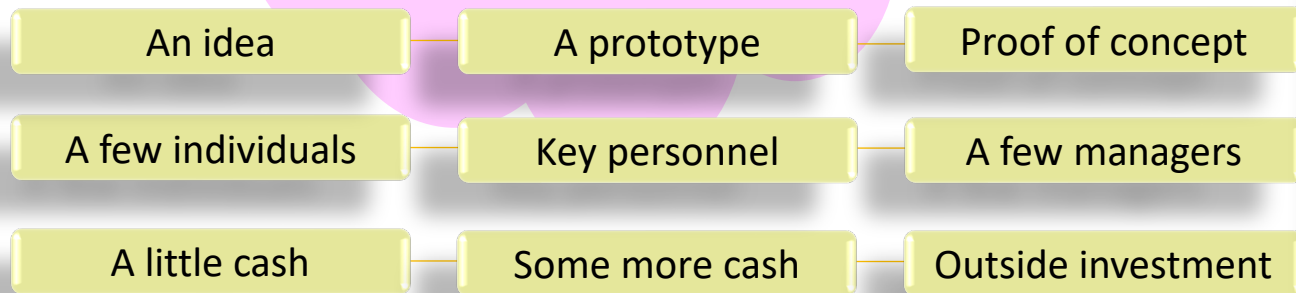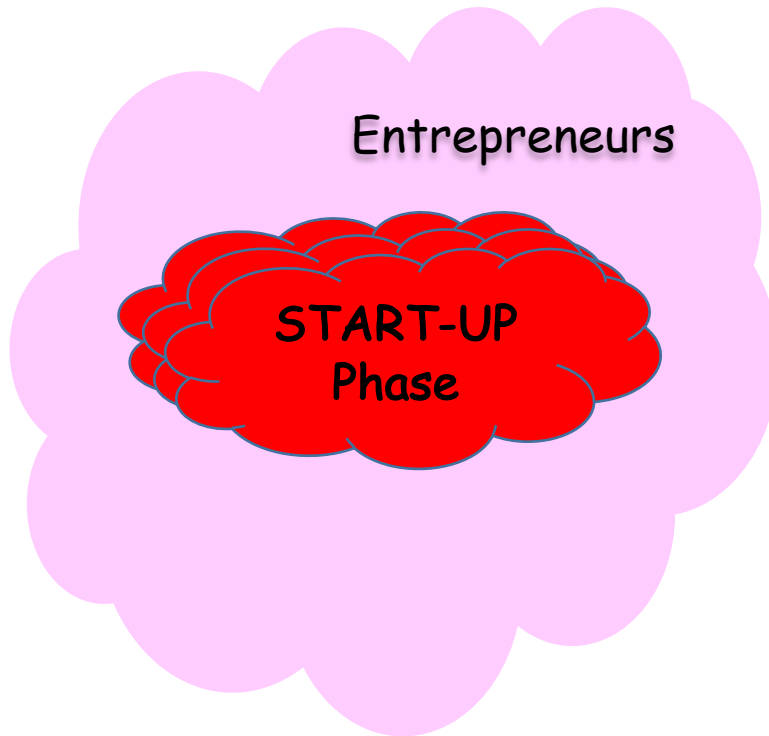
Economically speaking ...

The Silicon Valley Model

Startup success and failure rates
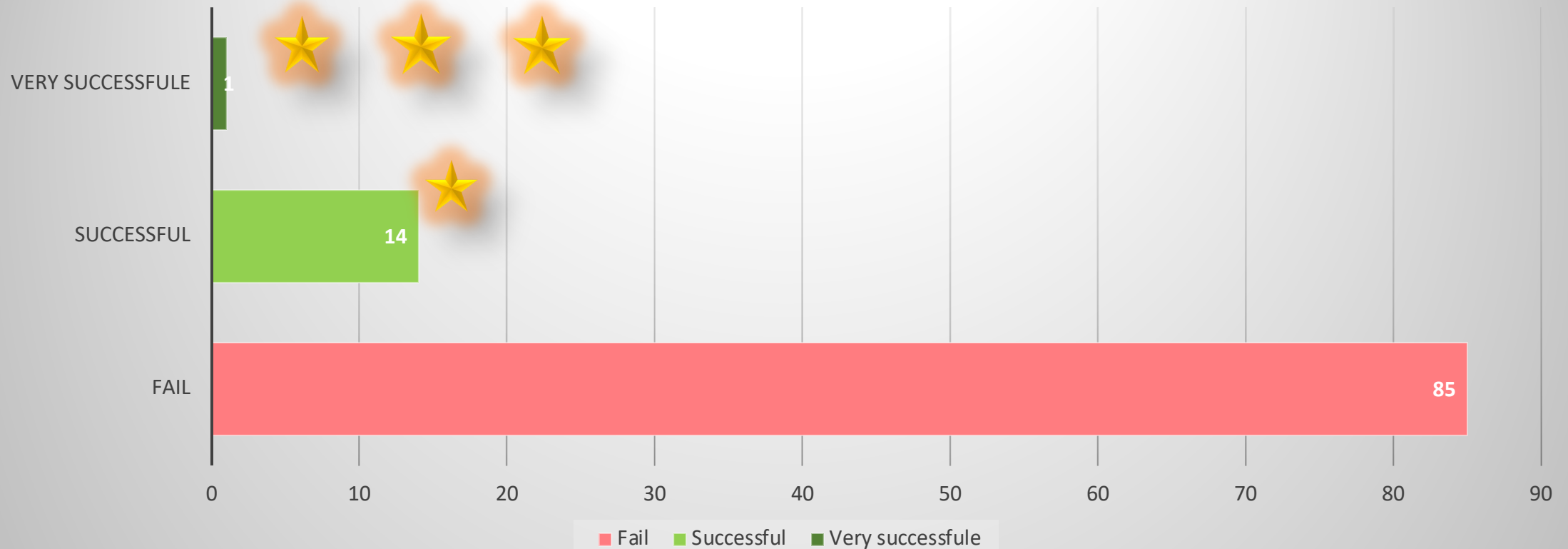
Category	Value
VERY SUCCESSFULE	1
SUCCESSFUL	14
FAIL	85

Legend: Fail — Successful — Very successfule

Axis: 0 10 20 30 40 50 60 70 80 90

Economically speaking ...

Good News!

BANKRUPT

PROFIT

Idea

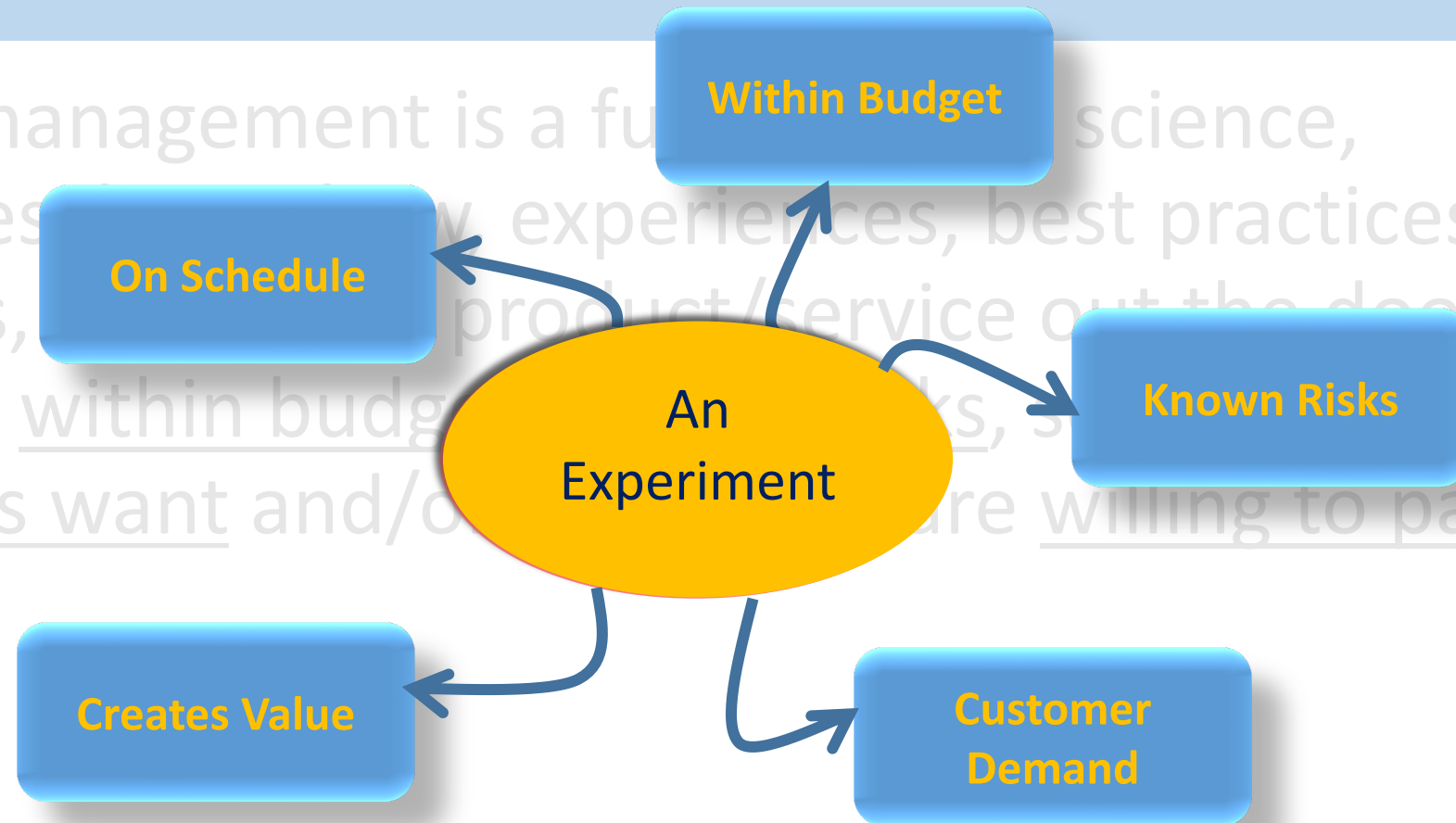Product

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Software Release Management
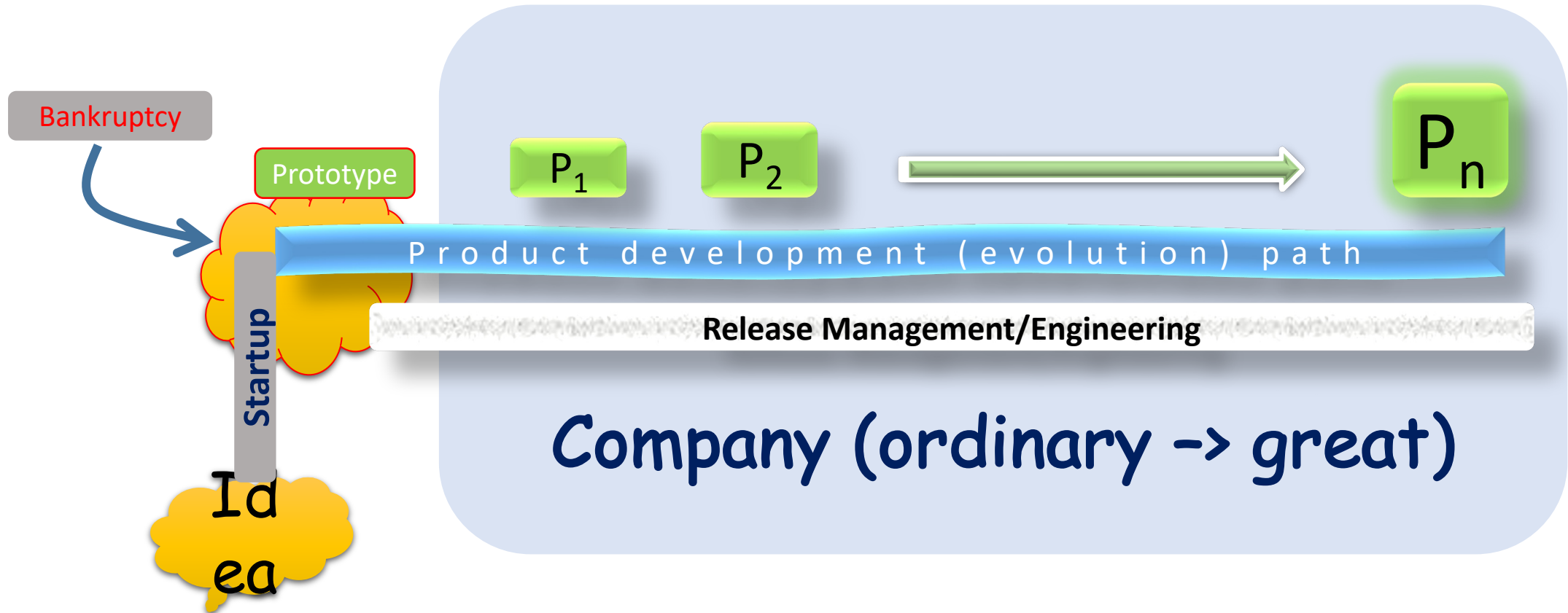Copyright - Hossein Raassi

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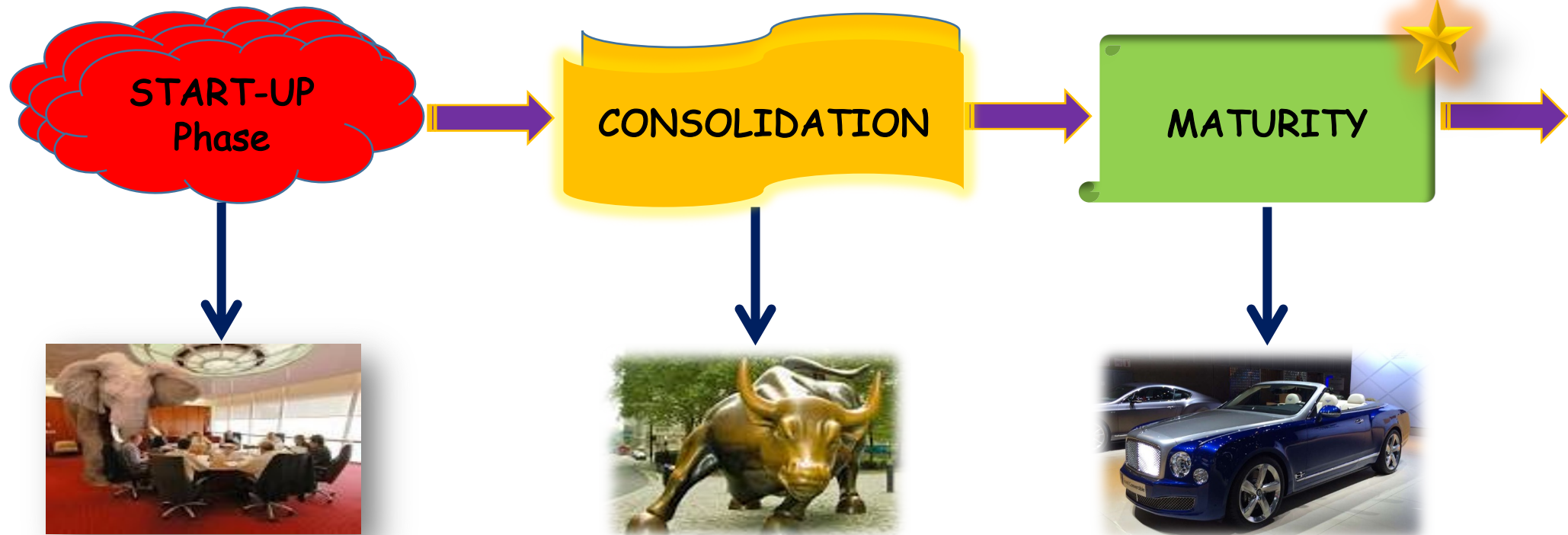- What has release management got to do with the 'survival' of your company?

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A definition …

Release management is a fu... ...science, engineerin... ...es, know-how, experiences, best practice... ...out the doo... ...risks, someth... ...D are willing t...

Within Budget

On Schedule

Applicable to all methodologies: from *Waterfall* to *Agile*

Creates Value

Customer Demand

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Caveat …

Release management is a fu[...] science, techniques, [...] experiences, best practices, trade-offs, [...] product/service out the door on schedule, within budg[...]ks, s[...]hat customers want and/o[...] are willing to pay for.

Within Budget

On Schedule

An Experiment

Known Risks

Creates Value

Customer Demand

Your top challenge …

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The beast!

START-UP Phase → CONSOLIDATION → MATURITY →

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Components of release management

Policy	Processes & procedures	Infrastructure & tools
What to release when	**Build process**	**Source control and configuration management**
(Major, Minor, Micro/Patch)	**Change management**	**Defect management**
	Handling of defects	**Automation framework**
	Milestones & coordination	
	Production launch	

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So, why should you care?

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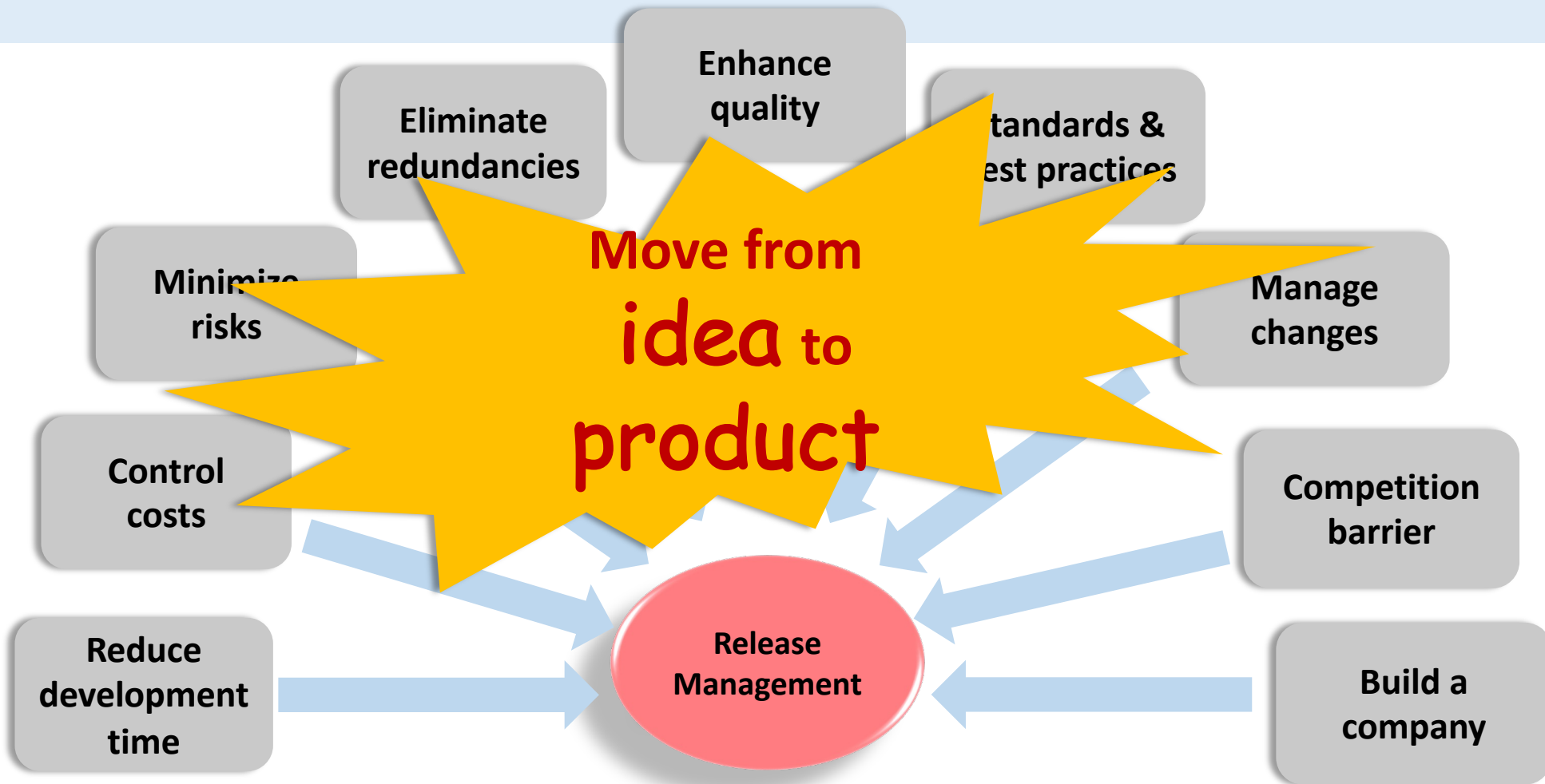
Popular software engineering models

- SEI CMMI (Capability Maturity Model Integrated)
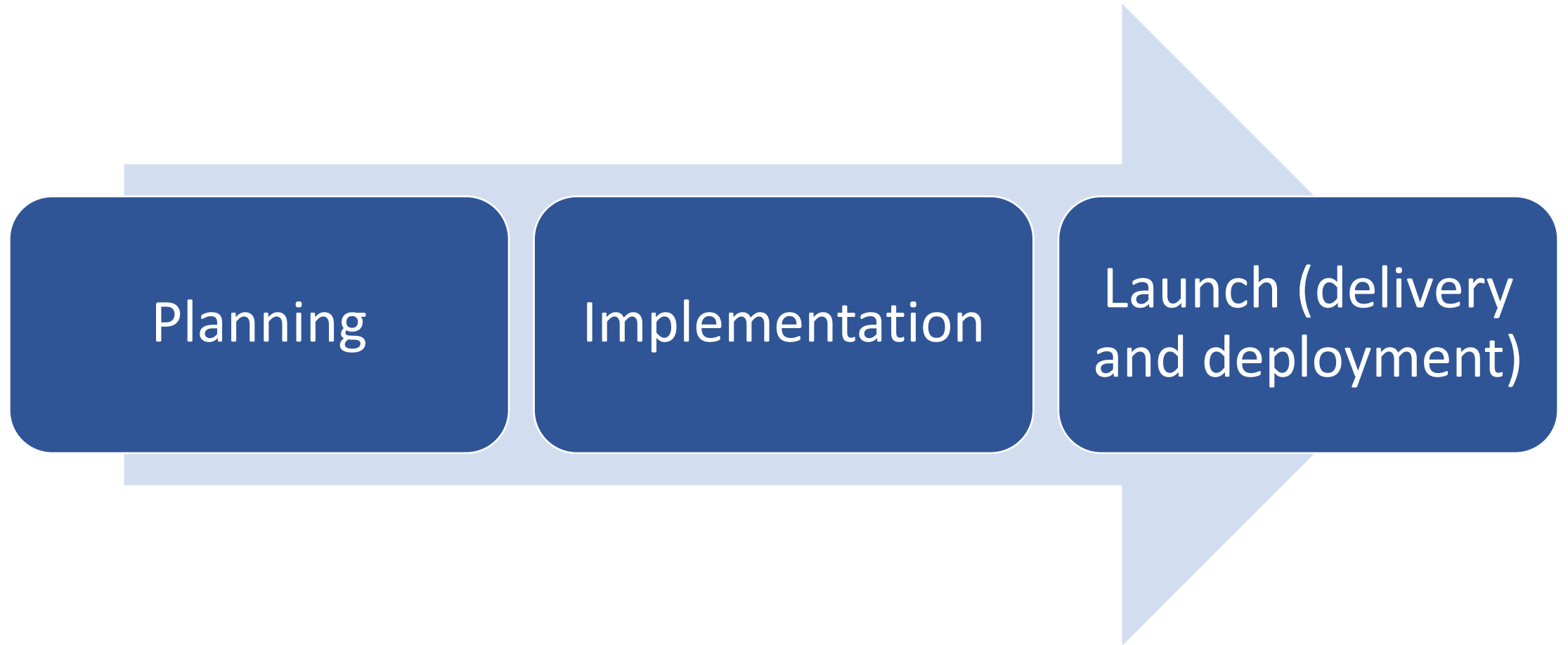
- IEEE

- ITIL

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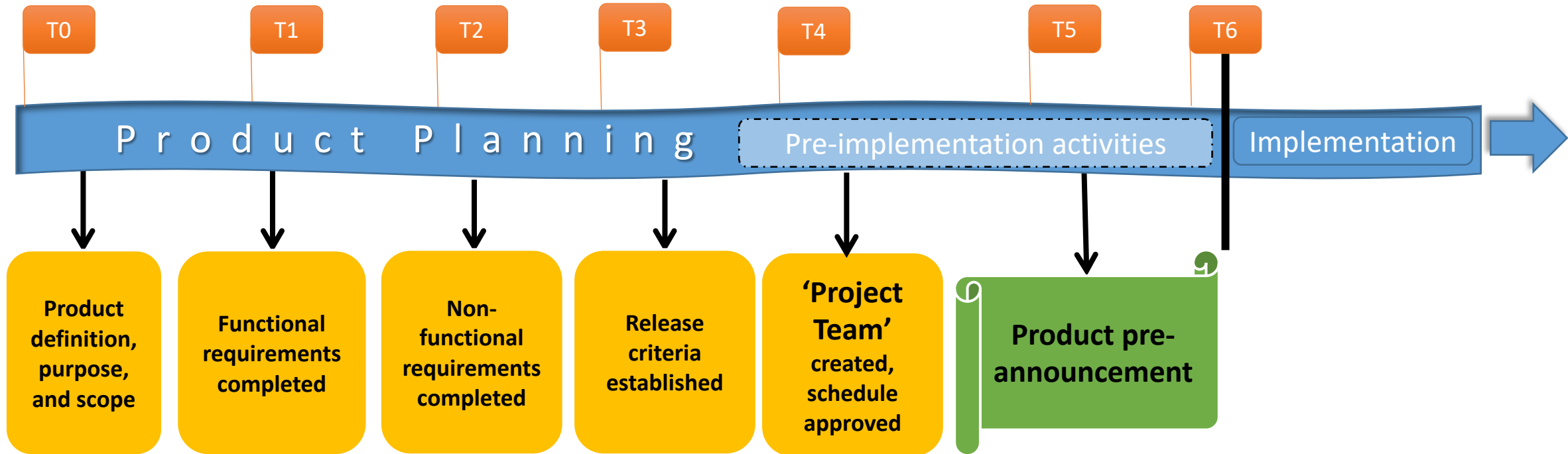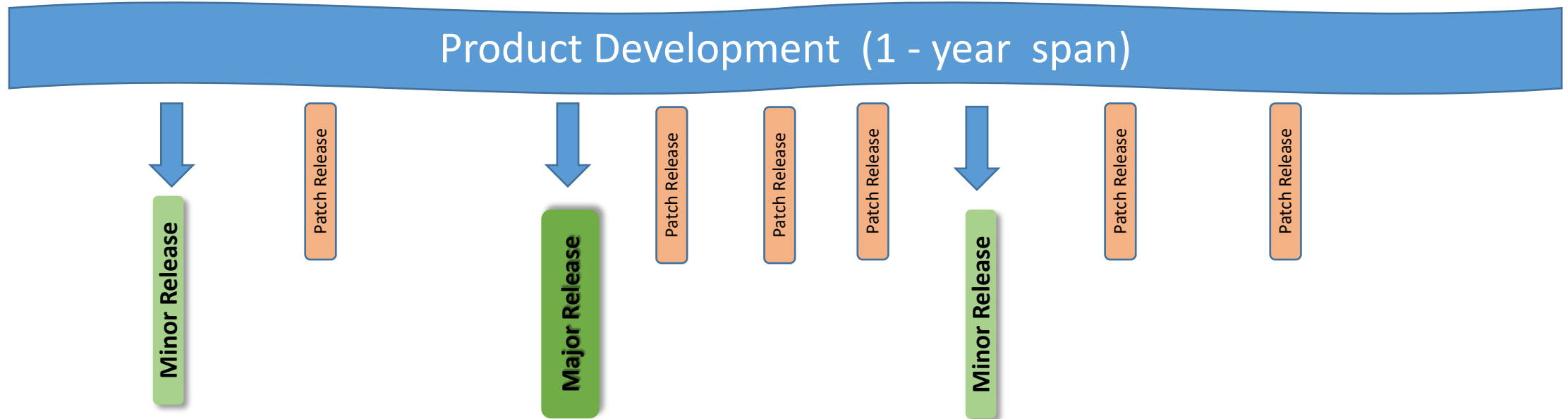- What has release management got to do with the 'survival' of your company?

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A paradigm shift

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Managing a release

Planning → **Implementation** → **Launch (delivery and deployment)**

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Release planning

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Typical release cycles

Product Development (1 - year span)

Minor Release

Patch Release

Major Release

Patch Release

Patch Release

Patch Release

Minor Release

Patch Release

Patch Release

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Release implementation
Develop, integrate, deliver/deploy

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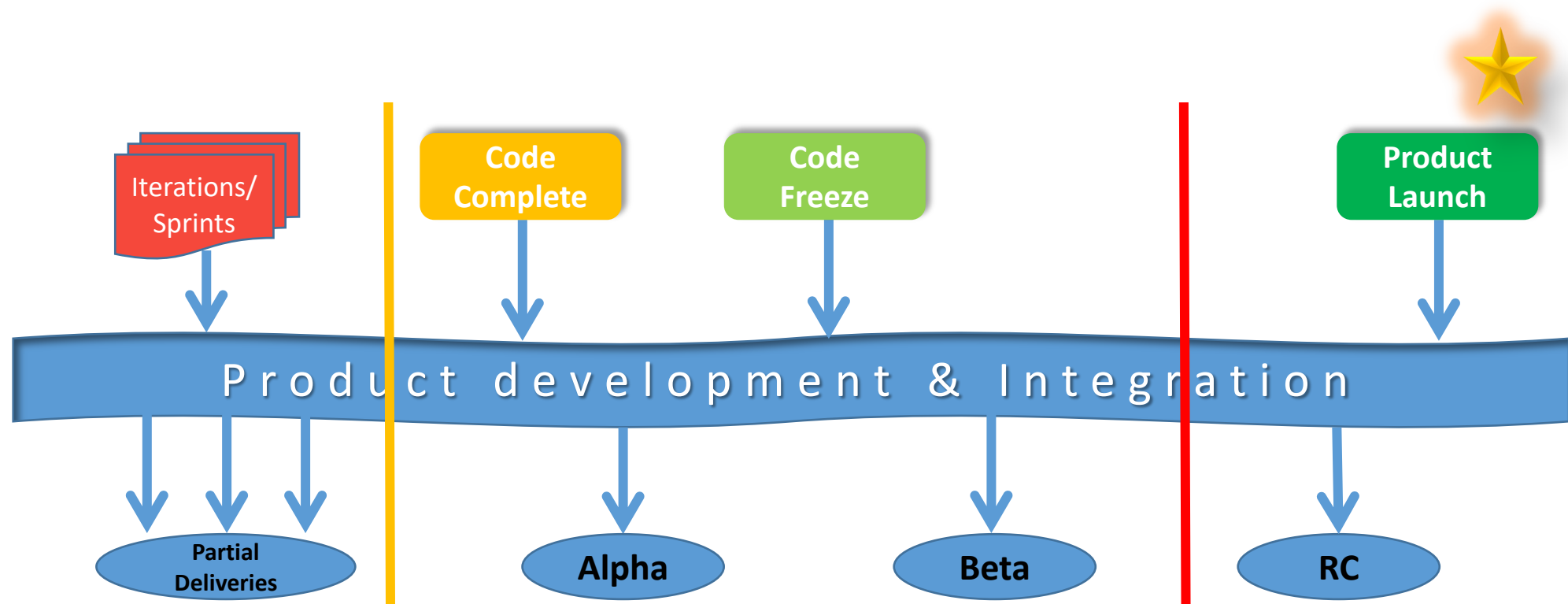
Release implementation
Develop, integrate, deliver/deploy

- Infreq[...]
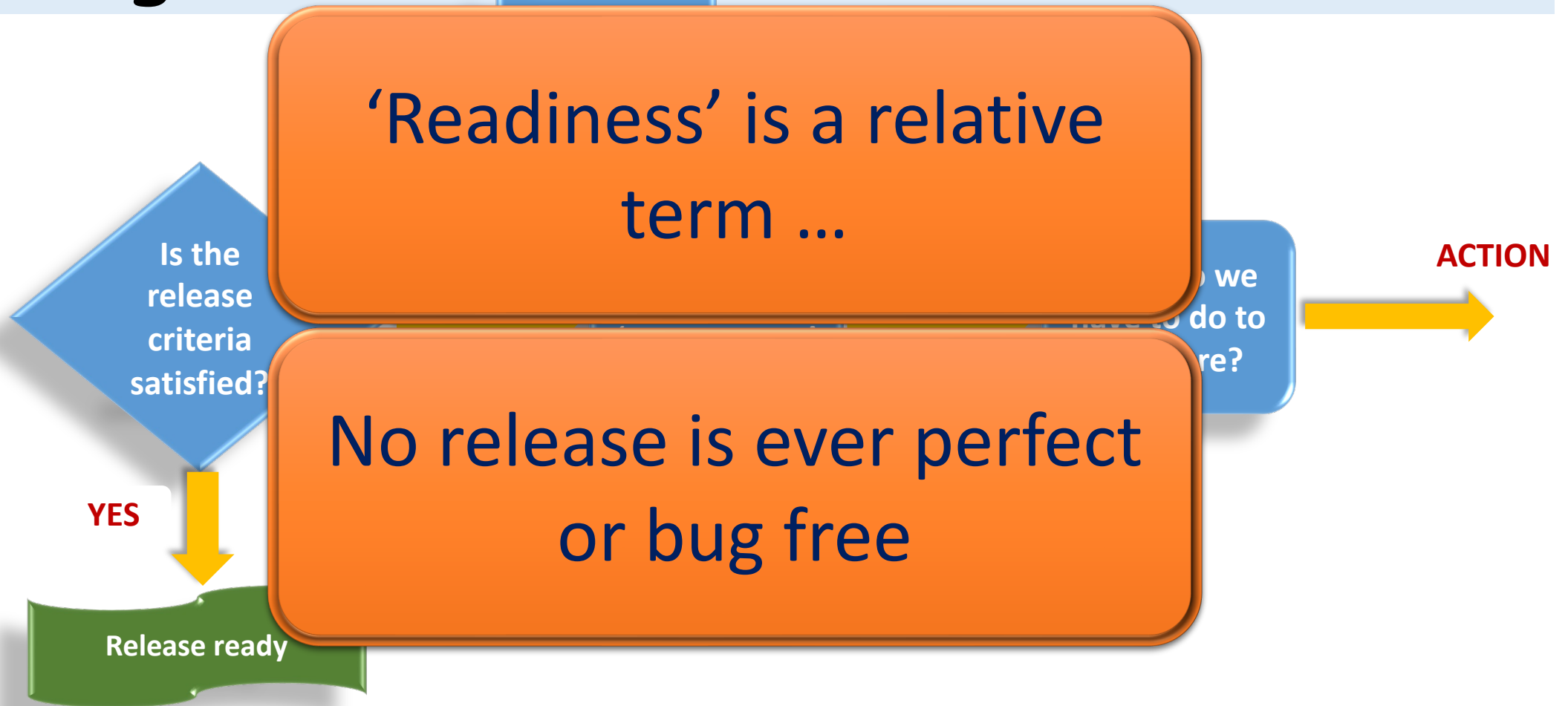 integra[...]
- Sched[...]
- Delaye[...]

Continuous Integration, Continuous Deployment

- Frequent (change-driven) integrations & builds

- Non-scheduled delivery & deployment

- Immediate user feedback

Software Release Management
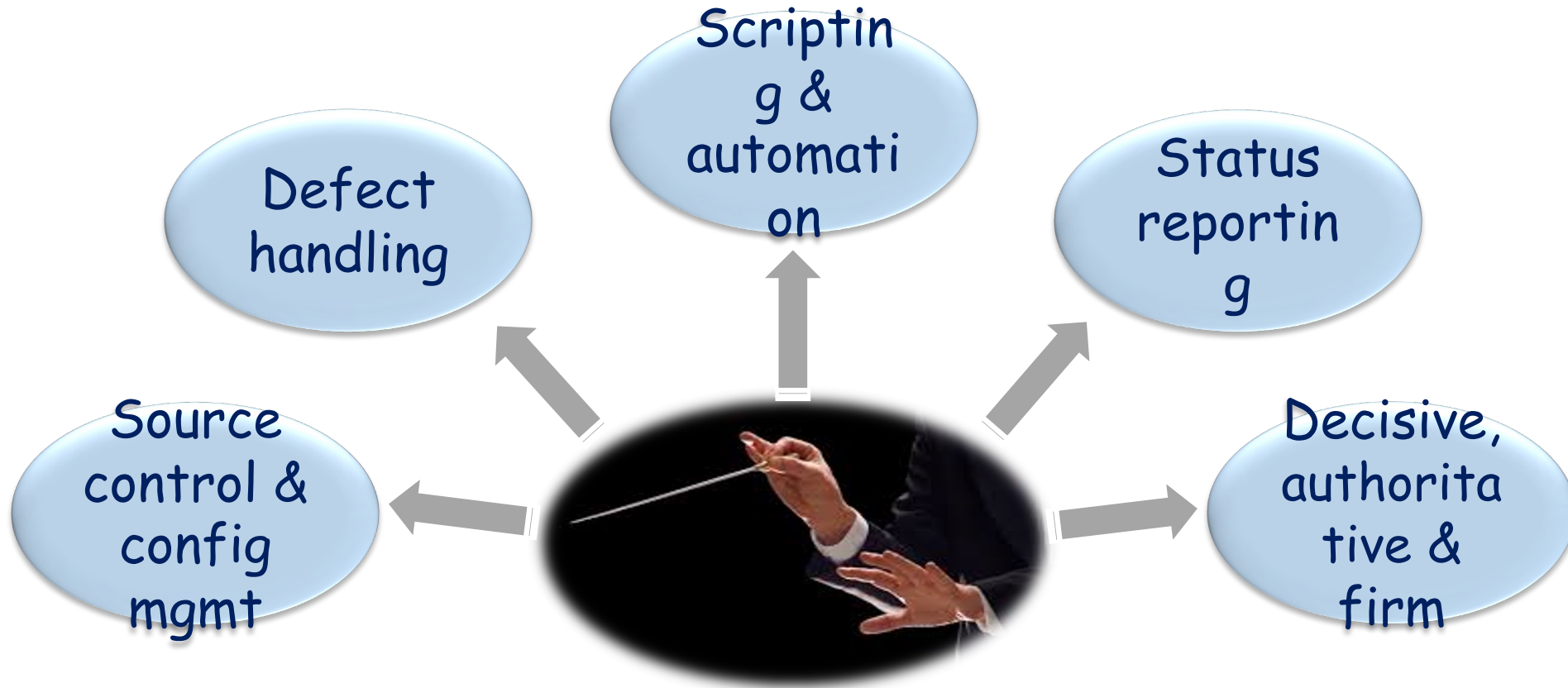Copyright - Hossein Raassi

Release launch: delivery and deployment

Release ready

Product development & integration

APPLICATION SOFTWARE

cloud
COMPUTING

iPhone ANDROID

Deployment

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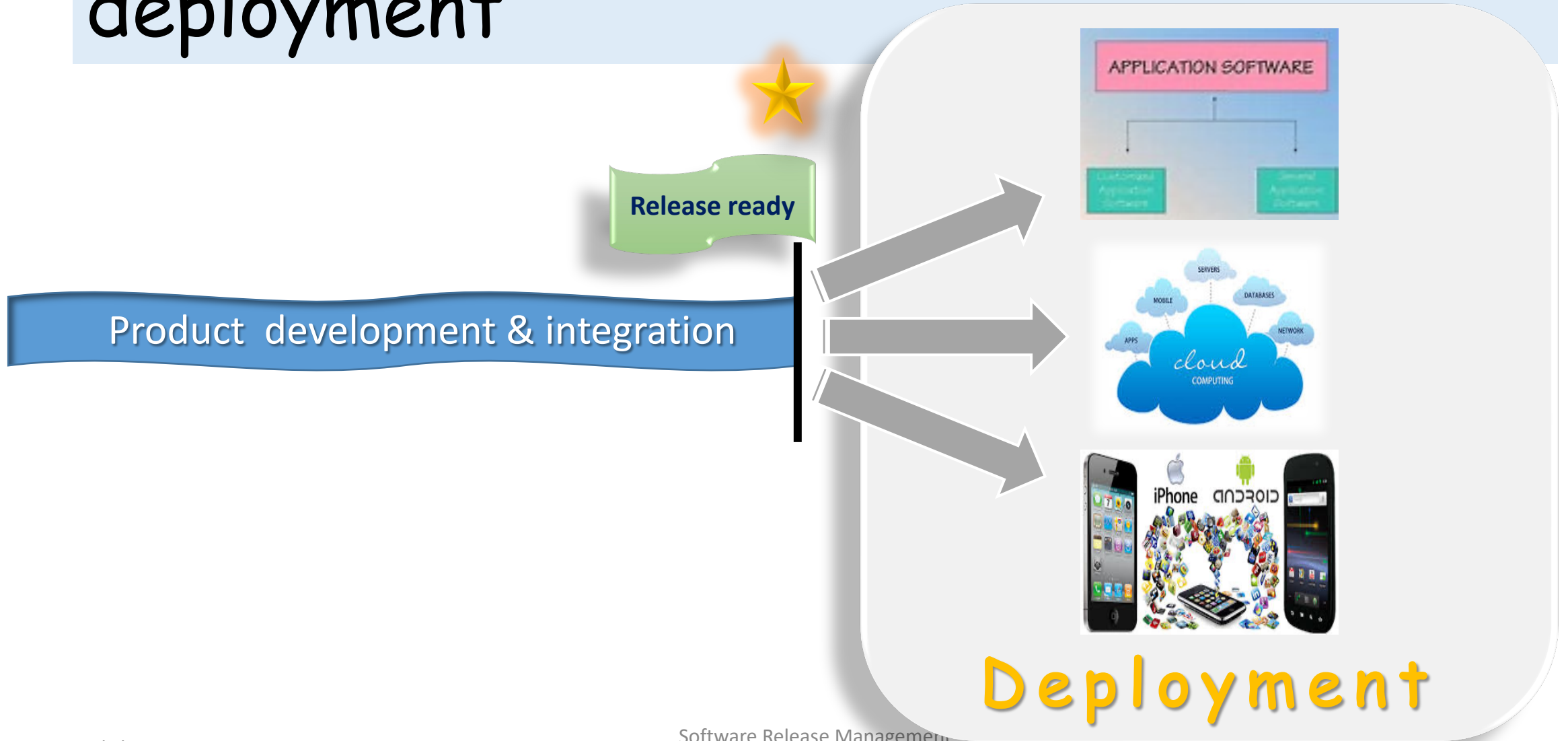
The meaning of 'readiness' in release management

Is the release criteria satisfied?

YES

Release ready

'Readiness' is a relative term …

No release is ever perfect or bug free

we
do to
re?

ACTION

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Role of the 'Release Coordinator'

Scripting & automation

Defect handling

Status reporting

Source control & config mgmt

Decisive, authoritative & firm

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Symptoms of release failures
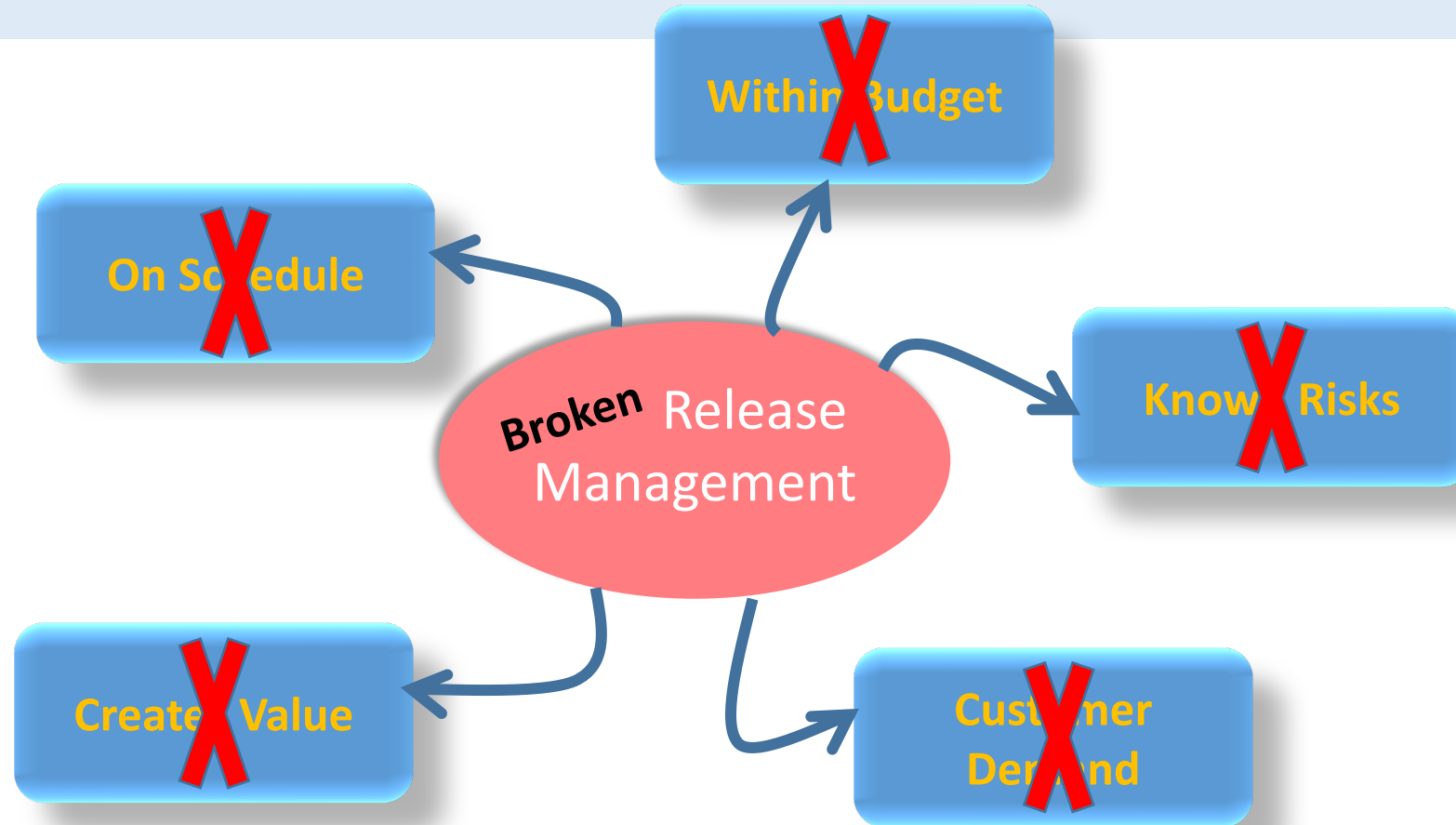
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Root causes of release failures

Ambiguous release policy (Major, Minor, Micro/Patch, …)

Poor release planning and execution

Resource deficiencies

Change mismanagement

Broken infrastructure

Unrealistic user/customer expectation

Lack of focus and coordination

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Release management in open source projects

- http://oss-watch.ac.uk/resources/releasemanagement (general notes)

- www.flosshub.org/system/files/51-55.pdf

  Linux, Subversion, Apache HTTP Server
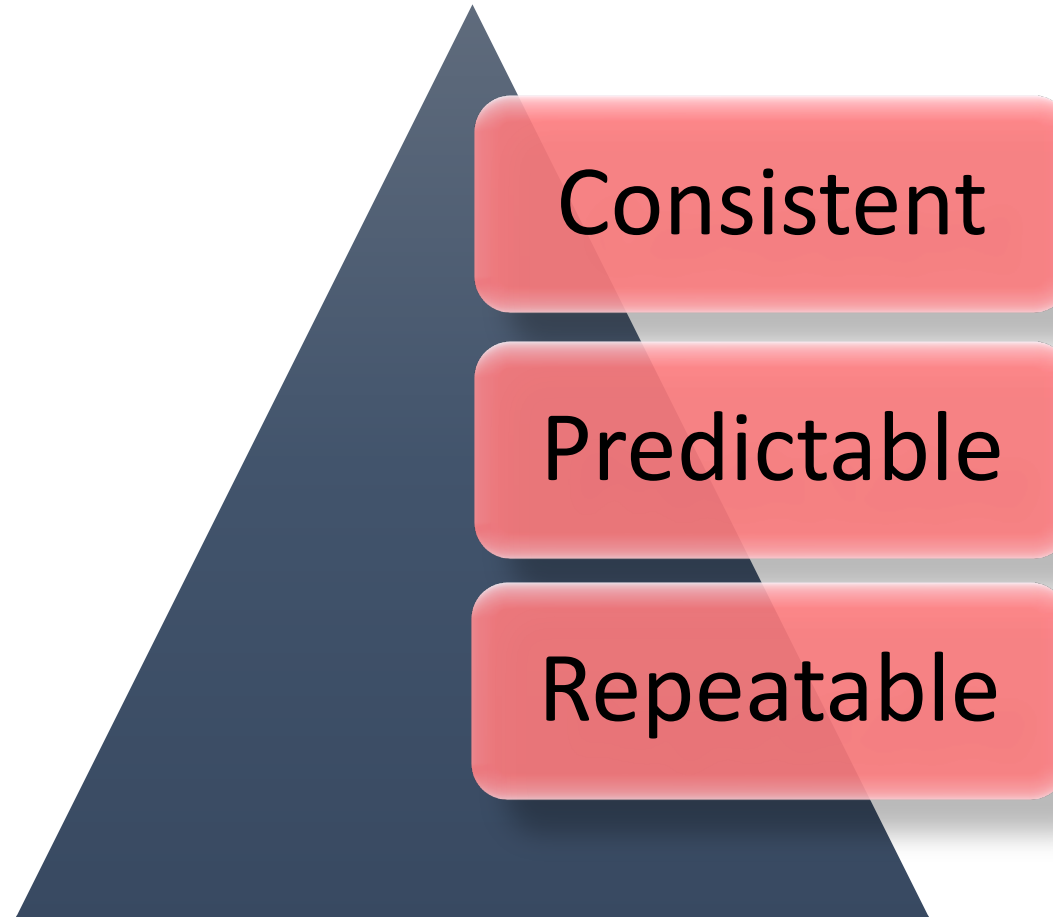
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So, why do you need to manage your releases?

Entrepreneurs

Ordinary

Companies

Release management is not a goal;
It's your path to corporate maturity.

How do you know your release management is working?

Consistent

Predictable

Repeatable

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Consistency

Customer delight

Release P_n P_{n+1} P_{n+2} P_{n+3} ...

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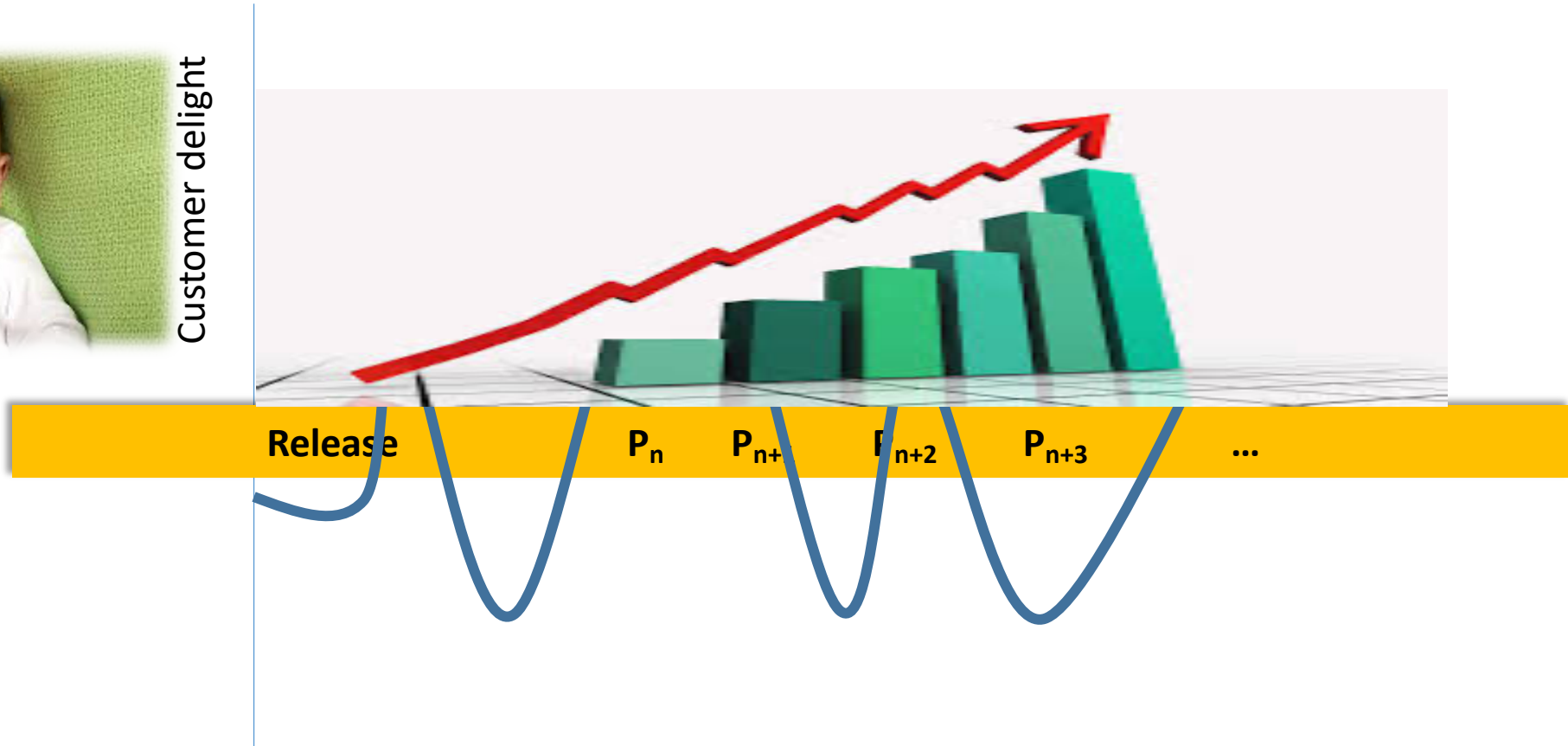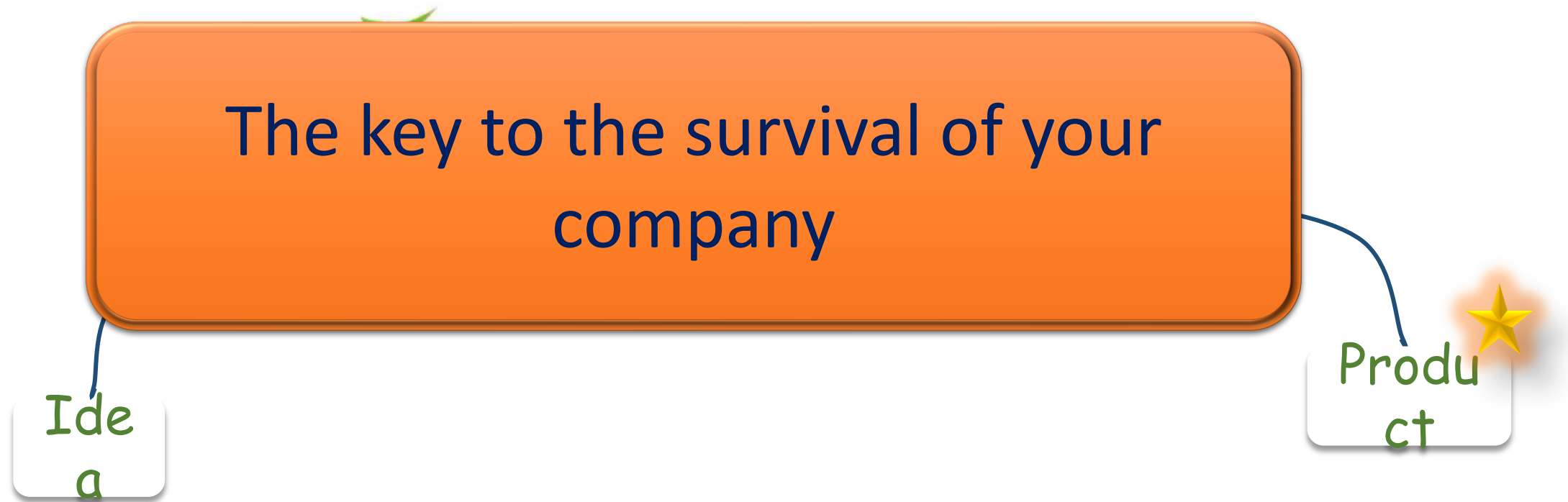
Predictability

- Is this doable?

- Can we do it?

- When can we deliver it, and at what cost?

Repeatability

- Repeat what works

- Discard what doesn't work

- Learn and move forward

In a nutshell ...

The key to the survival of your company

Idea

Produ
ct

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My last thought

Release Management is …

A critical software engineering practice	A 'Core Competency'	A survival strategy

Thank you!

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