BRNO UNIVERSITY OF TECHNOLOGY

iSCORE.ORG CARD

Innovation Scorecard: Measuring the Success of any Innovation within Business

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Agenda & Rules

Part 1: Background & Theory

- How Did It All Start?
- What Is Meant by Innovation Scorecard?
- Innovation Scorecard – Developed & Modified
- Research Process
- Q&A

Coffee Break

Part 2: Practical Applications

- From Theory to Practice
- Case Study 1: Atomic Host
- Case Study 2: Continuous Integration
- Case Study 3: Global WiFi Rollout
- Lessons Learned
- Conclusion
- Q&A

Researchers' Background

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Part 1

Innovation Scorecard
Background & Theory

Czech Scientific Foundation Grant 2013-2015

Innovation Process Performance Assessment

Do Czech organisations measure innovation efficiency and success?

How? What methods/metrics do they use?

Innovation Scorecard theoretical framework design

Technology Agency of the Czech Republic: Grant 2019-2021

Innovation Scorecard: Management Control Framework of Innovation Project in IT industry

Theoretical Background

KPIs (OKRs) Design

Balanced Scorecard

Performance Measurement System Design

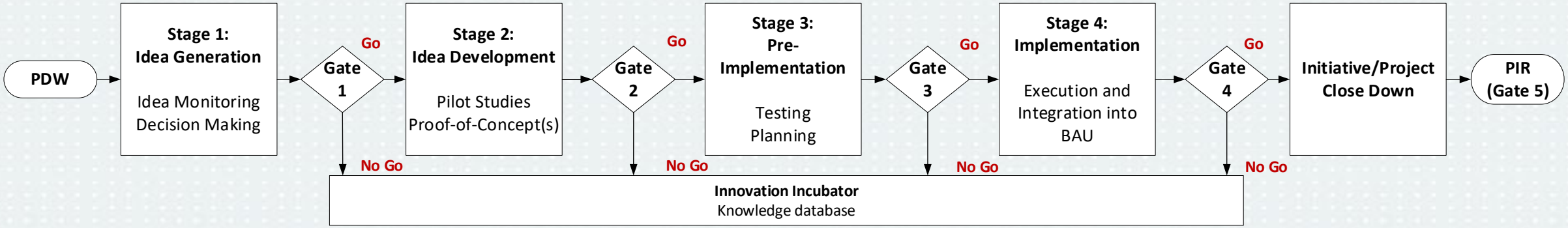
Project Management

Innovation Management

iScorecard: Foundation

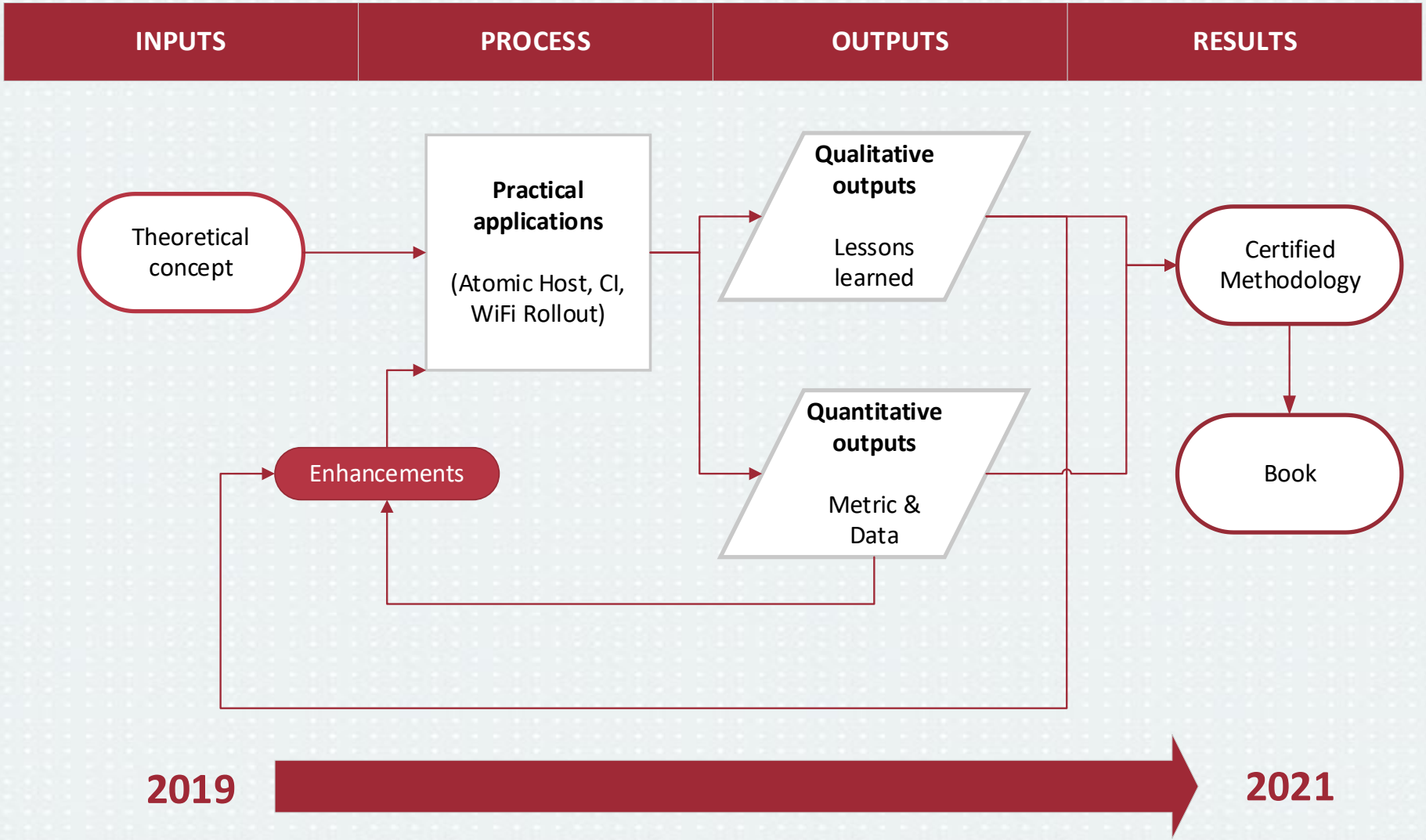
Innovation Scorecard v 0.0

Theoretical Management Control Framework



Modified Design Process

Research Process



Q&A

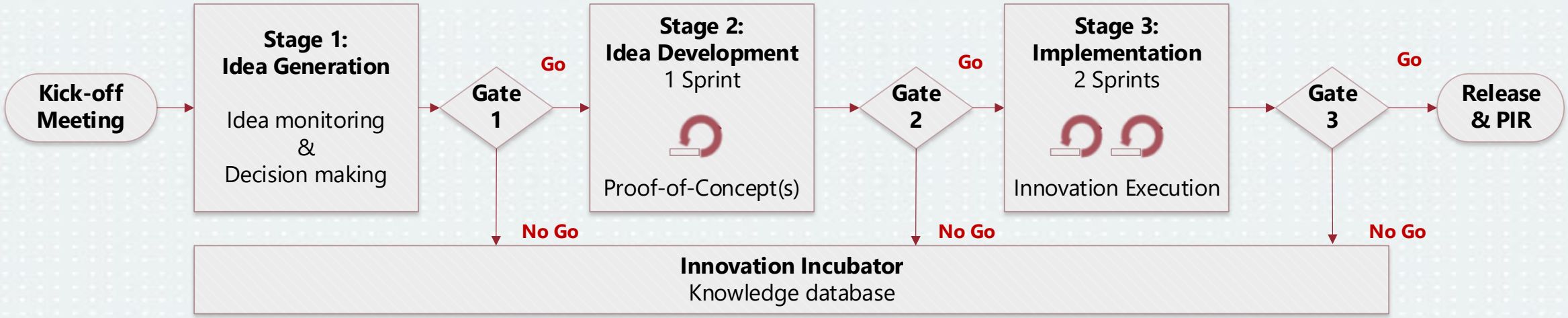
Part 2

Innovation Scorecard
Practical Applications

From Theory to Practice

Innovation Scorecard v 0.1

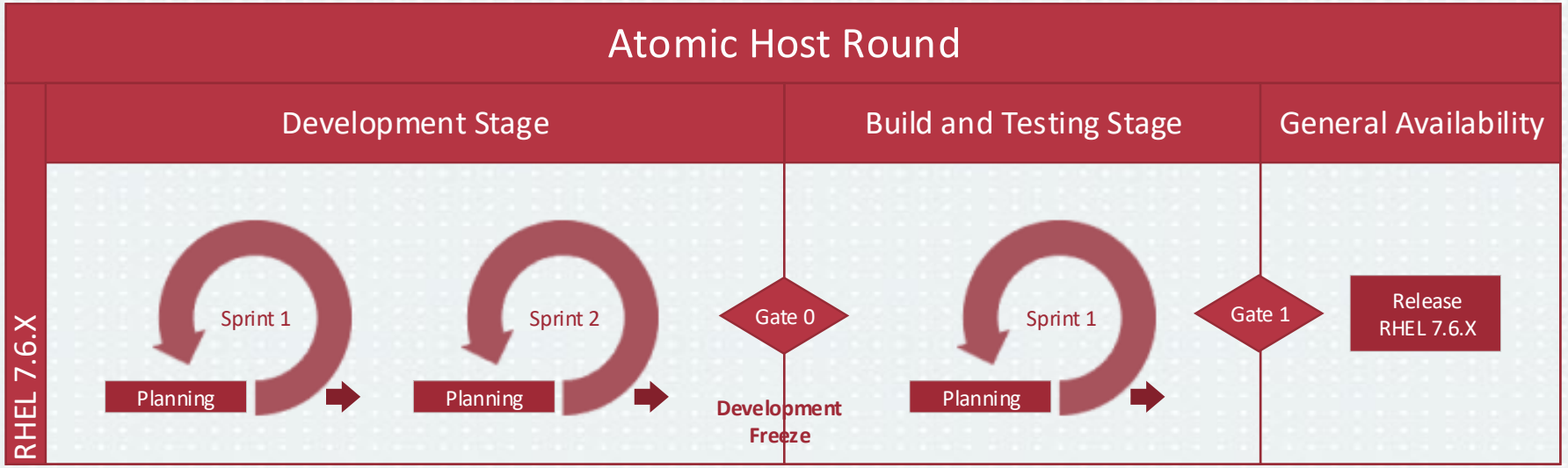
Modification and Verification for use in agile working environments



First Practical Application For Use Within A General Purpose Operating System for Applications

...walking before running!

Case Study: Atomic Host



Goal 1 **Introduce an Innovation Scorecard System**

CSF1 *Produce high level project documents*

Goal 2 **Automation of the Container Build Process**

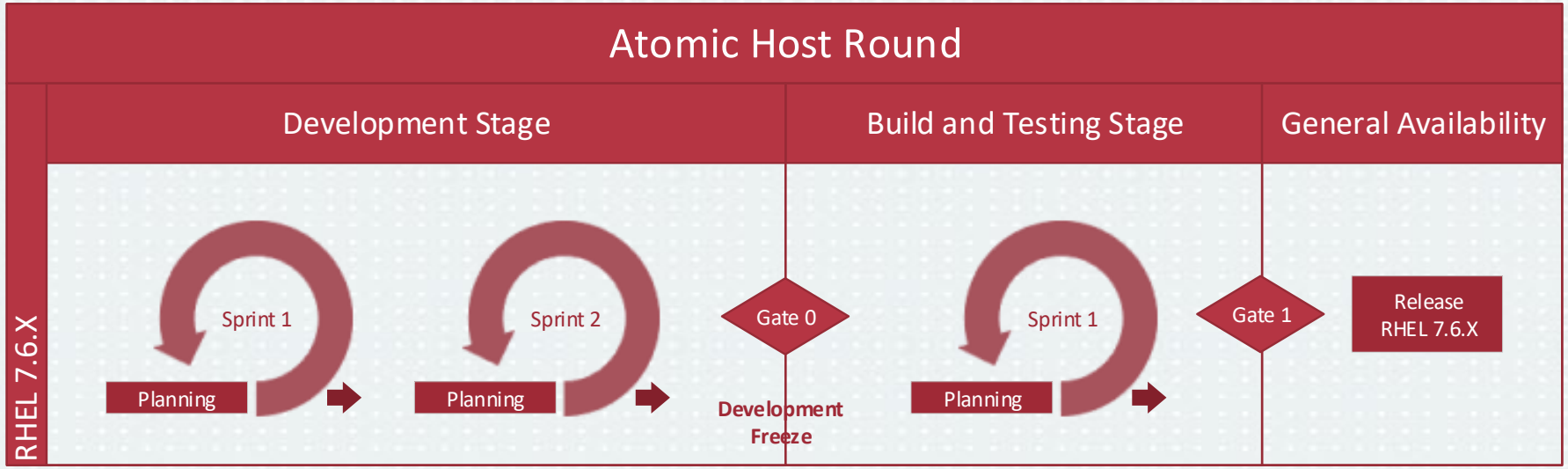
CSF1 *Develop/buy automation tool and implement it*

CSF2 *Improve modus operandi*

CSF3 *Improve the Design and Container Build Reporting Process to improve communication flow*

CSF4 *Effective dependency management during Container Build Process*

Case Study: Atomic Host

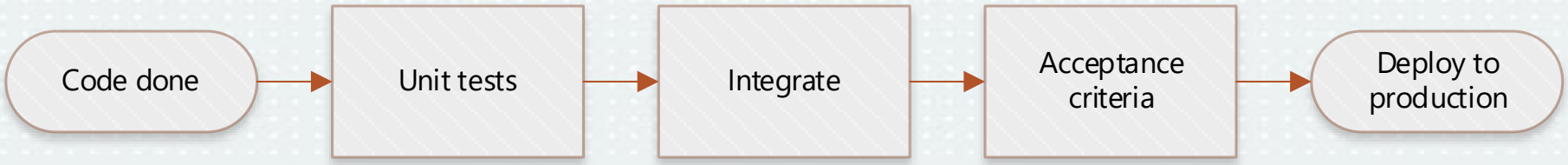


	Metric number/name	Target
Inputs	I01 - Working activities structure	Reduce manual repetitive work
	I02 - Blocked time	Minimize
Process	P01 - Number/weight of errors during implementation	Minimize
Outputs	O01 - Number of requests for automation tool changes	Max. 1 radical/10 incremental
	O02 - Number of due (priority) activities	Minimize
Results	R01 - Job Satisfaction	Increase
	R02 - Saved resources	Maximum of time

Second Practical Application-Stronger Metrics and Complex Challenges

...we started to run!

Case Study: CI



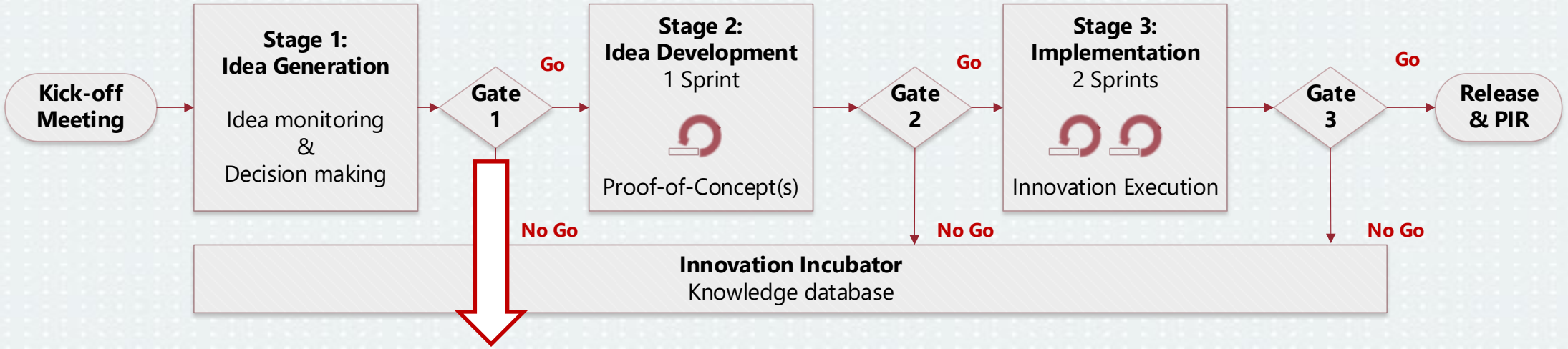
CI Future Vision:

To deliver code changes faster, with fewer errors and at lower costs.

Innovation Project Goals:

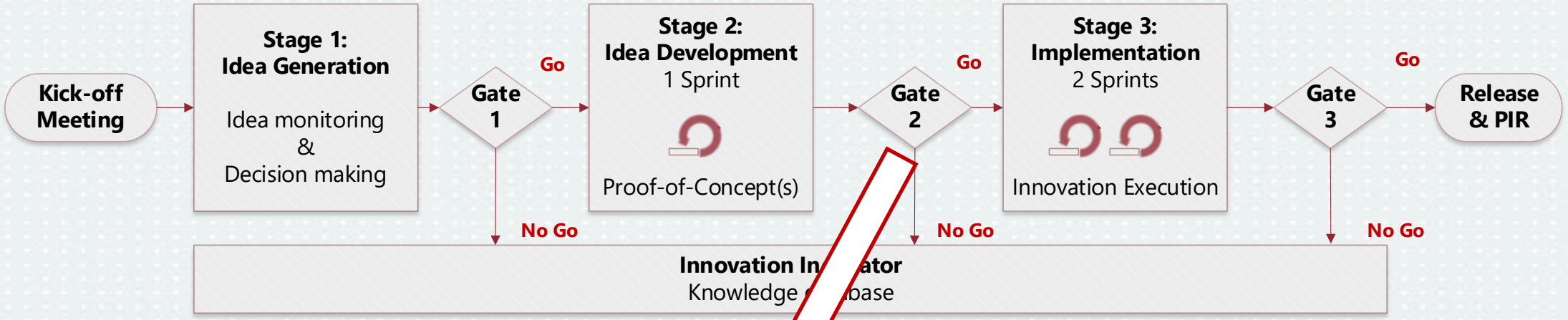
- Make the process easy to update and fit for its intended purpose
- Reduce or minimize maintenance
- Improve the speed of managing file issues
- Reduce engineering input time

Case Study: CI



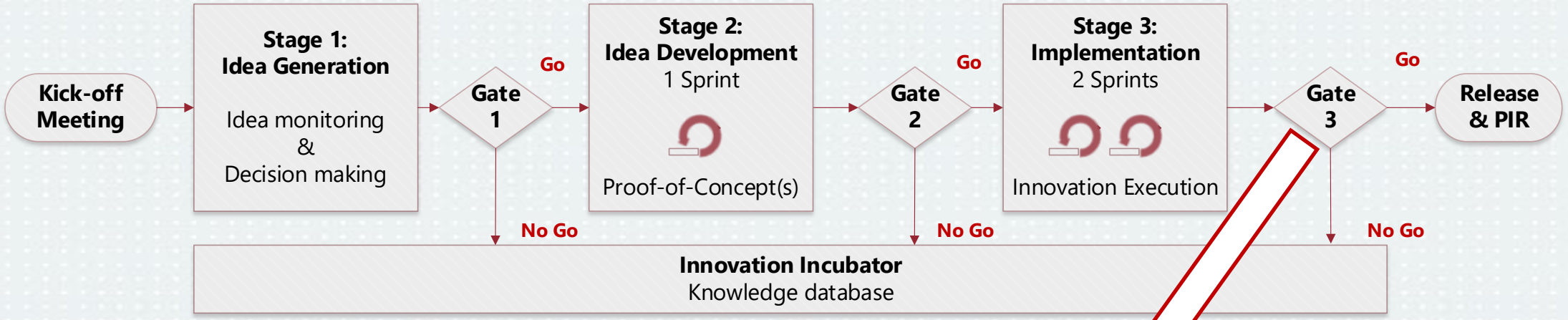
	Metric number/name	Target
Inputs	G1IO1 – Work Effort for Given Tasks	iScorecard max 0.8 FTE Red Hat max 0.25 FTE
	G1I02 – Quality of current CI process	Minimize blockages
Process	G1P01 – Time of systematic idea generation and evaluation	Max. 1 week
Outputs	G1O01 – Quality of generated idea(s) – percentage of the problems solved by each idea generated	Min. 75%
Results	G1R01 – Milestone/Deadline	6th July 2019
	G1R02 – Total cost of idea generation phase	Maximum 50,000 CZK

Case Study: CI



	Metric number/name	Target
Inputs	G2IO1 – Work Effort for Given Tasks	iScorecard max 2 FTE Red Hat max 1,6 FTE
	G2I02 – Number of proposals from stage 1	Min. 1
Process	G2P01 – Interventions within the Development Stage by the innovation team	Intended max. 1 Unintended max. 5
Outputs	G2O01 – Quality of proof of concept offered	Min. 75%
Results	G2R01 – Milestone/Deadline	30th July 2019
	G2R02 – Total cost of idea Development Stage	Maximum 100,000 CZK

Case Study: CI



	Metric number/name	Target
Inputs	G3IO1 – Work Effort for Given Tasks	iScorecard max 1.6 FTE Red Hat max 0.8 FTE
	G3I02 – Senior Management commitment	Min. 1 from CI team Min.1 from Red Hat team
Process	G3P01 – Number of meetings/calls within the Innovation Project	Min. 1 at inception + 1 within stage
Outputs	G3O01 – Number of change requests relating to proof of concept	Radical max. 1 Enhancement max. 2
Results	G3R01 – Milestone/Deadline	28th October 2019
	G3R02 – Total cost of idea generation phase	Maximum 300,000 CZK

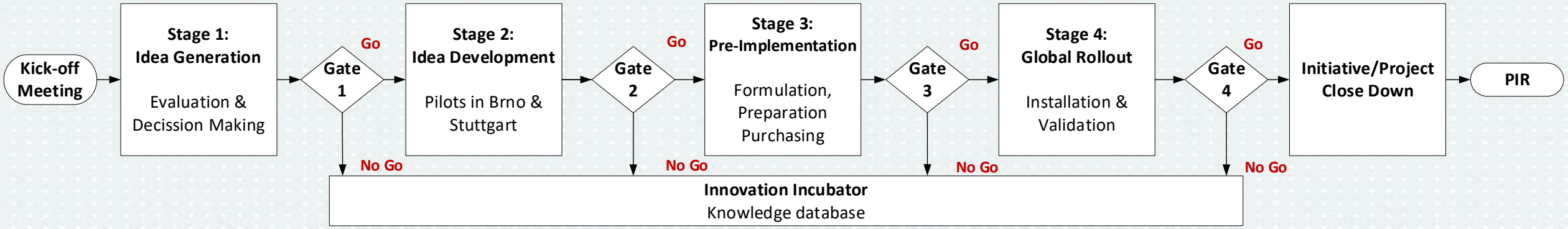
Third Practical Application- Matured Metrics in a Global Environment

...Finish Line!

Case Study: Global WiFi Rollout

Goals:

- To optimise wireless signal coverage across all Red Hat's offices
- To improve the quality of access points
- To improve services such as connectivity, trouble shooting and analytics (improved resource allocation)
- To improve the end user experience
- To simplify and automate operations for the IT teams



Top 5 Metrics

1. Quality of idea (Gate 1) and pilot (Gate 2) [best ranking & acceptance criteria]
2. Collisions with current HW/SW [number of instances]
3. Lost Time [hrs]
4. Vendor Management [best ranking]
5. End Users Satisfaction with New WiFi Solution [increase by 25%]

Overall Lessons Learned

1. Start of with something simple and then move to more difficult areas
2. Any process you are applying needs to be modified for specific business needs
3. Communication need to be more effective
4. To manage the people wealth
5. To empower people more
6. Not to be afraid to make process changes
7. Ensure that people are deputised
8. Hand over process needs to be improved
9. Fact and not assumptions
10. Operational response and resilience need to strengthen

Project Management Institute.

ČESKÁ SPOLEČNOST PRO JAKOST, z.s.
(CZECH SOCIETY FOR QUALITY)
awards

CERTIFICATE

for the applied methodology

Innovation Scorecard Methodology

prepared within the TAČR – ÉTA, „Innovation Scorecard: Management control Framework of Innovation Project in IT industry“, TL02000007 Project

The methodology was produced by

Eddie Fisher
Ondrej Zizlavsky

The certification was ordered by

Brno University of Technology, Faculty of Business and Management

This is to certify that Česká společnost pro jakost, z.s. - Certification body for system management and product certification independently reviewed the methodology and approved the application of the certified methodology in accordance with the conditions of the document

"Methodology for Evaluating Research Organisations and Research, Development and Innovation Purpose-tied Aid Programmes Approved under Czech Government Resolution No. 107 of 8 February 2017"

CERTIFIKAČNÍ ORGÁN ČSJ ČESKÁ SPOLEČNOST PRO JAKOST

Certificate No.: M057/M/2021/AJ
Date of issue: 13/09/2021
Head of the System Management and Product Certification Body: Ing. Petr Koten

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Q&A