How do we best exploit Continuous Integration as a means of GI deployment and what research questions does CI deployment pose?

Marinos & Group!
What research questions does CI deployment pose?

What do we want to achieve with GI?
Continuous Integration

Developer 1

Build and more...

Developer N
GI and CI: Research Question 1

At which stage of the CI pipeline should we apply GI?

Should GI run after each commit?

Should GI run during the night or at weekends?

source: http://www.suitqaisdiaries.com/best-age-to-travel/
GI and CI: Research Question 2

Can we design efficient GI processes?

Can we leverage the incremental nature of GI?

Can we leverage change information to restrict GI’s search space?

source: https://www.insidehousing.co.uk/partner/partner/efficiency-culture
GI and CI: Research Question 3

Can GI learn from CI historical data?

Can GI learn from previous developer decisions?
GI and CI: Research Question 4

Can we estimate the effort that GI requires to target a problem?

How much time does GI need to fix my bug?

Can we have a budget-based GI?

source: https://www.projectsmart.co.uk/effort-estimating-a-primer.php