

# Enhance your Technical Excellence with Nagarro!





**Emily Bache** 

"Technical decisions should not be slowed down by poor quality or lack of infrastructure and capabilities."

Increase your technical agility to avoid this pattern.

## **Enable Technical Agility in your Engineering Teams**

## What is Technical Agility?

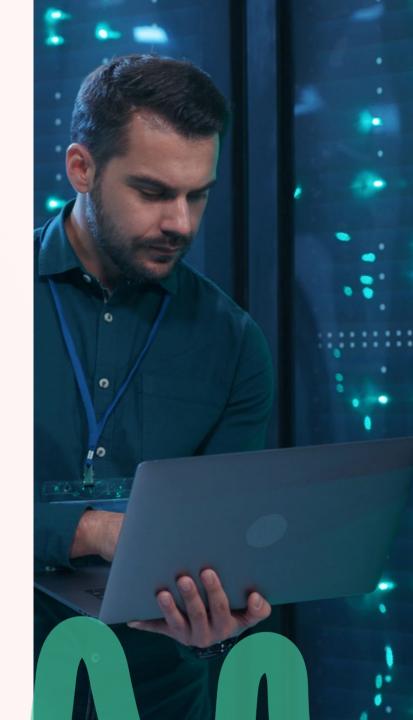
Technical Agility is about promoting and increasing the technical excellence in your agile teams to enable fast innovative delivery while maintaining the highest quality.

Agile teams must deliver high quality software while managing and continuously decreasing the technical debt in their code base. For accomplishing these tasks, teams need a collective understanding of the responsibilities and a high technical competence.

Our Technical Agile Coaching approach helps teams deliver well-crafted software by improving their agile practices.

## What is Technical Agile Coaching?

Technical Agile Coaching is an approach to promote the technical excellence in your teams where experienced coaches practice and work together with the team in their daily work while teaching the theory as well.



# Signs a company needs Technical Agile Coaching











# Changes are expensive and hard

Even small changes are painful and pose significant business risks.

Over budgeting due to redundant and repetitive work.

## **Delay in Delivery**

Manual regression and progression testing, tech debt, escaped defects, etc. causes delay in delivery.

It often takes months to get anything to production. Backlog is painfully long.

## **Poor Quality**

Lack of automation test suites would mean more manual effort which results in missing out on defects.

Fixing bugs and problems takes a lot more time than value adding improvements week after week.

## **Communication Gaps**

Technical experts do not understand business goals and business doesn't understand technical people.

## **Dependencies and Silos**

Bottleneck and dependencies due to technical silos.

Key persons are often overbooked and become bottlenecks for value delivery.



## **Benefits of Technical Agile Coaching**

## Increase flexibility and lower change cost

Maintain the code easily with design principles and emergent architecture.

Enable your development teams to adopt an agile mindset.

Customer observe faster feedback!

### Minimize risk of failing delivery

Trust your code by building small features frequently guided by automated tests.

Build meaningful unit tests with better test coverage. Trust our code base.

Leave the office without fear!

#### Implement new features

Reduce the time of endless bug analysis. Less interruption in your daily business.

Faster completion of inconvenient tasks.

Motivate employees!

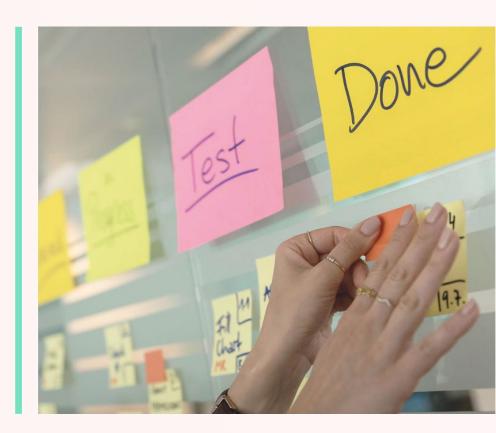
## Increase code quality

Boost the developer's fitness. Applying save code improvements frequently.

Create a common understanding and commitment to Clean Code,

Unit Tests, Refactoring.

Easy and quick understanding of the Code



## What can we do together?



## **Mastering Technical Excellence**

- Experienced coaches practice and work together with the team in their daily work.
- Dedicated "Learning Hours"- in these sessions we focus on training of specific knowledge and skills in small steps.



## **Designing Emergent Architectures**

- Training and mentoring
- Facilitation of design workshops (Event Storming, DDD)
- Evaluation workshops of different architecture styles
- DDD and Micro Service Architecture



## **Agile Development Pipeline**

- · Agile SDLC consulting
- · Setting up an agile architecture approach
- Implementing a test automation strategy confirming to the test pyramid
- Shift Left Coaching and establishing ATDD and BDD

## **Legacy Transformation**

- Trainings and coaching of the legacy development team
- Designing migration strategies
- Skill up your legacy development teams with new ways of engineering, up-to-date technologies and state of the art programming languages

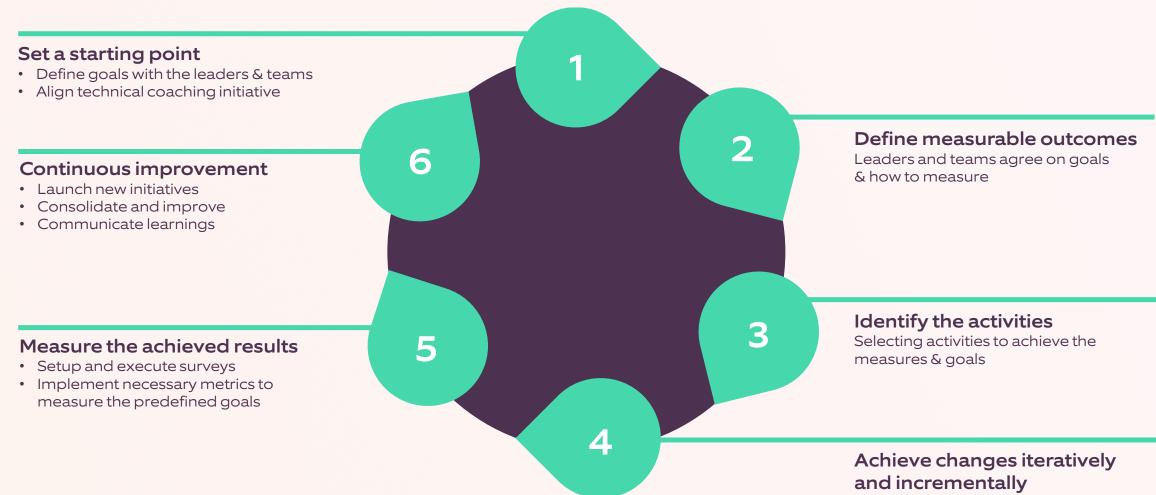




# Foster sustainable Technical Agility

nagarro

Mastering Technical Excellence



- Coaching weeks with identified activities
- Focused learning sprints

## **Example: Focus on Test Automation** of Microservice Architecture



Week 1

Week 2

### Focus on: **Test Automation**

- Test Automation principles, patterns and practices
- Testing pyramid in action

## Focus on: Clean Code

- Unit Testing and TDD
- Refactoring
- Clean Code
- Code Smells

#### Week 3

## Focus on: **Architecture & Design**

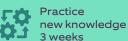
- Software Design Principles
- Hexagonal Architecture
- Coupling and Cohesion

### Week 4

## Focus on: **MicroService Test Strategy**

- Refactoring monolith to hexagonal architecture
- MicroService Test Strategy





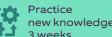
Example

week













new knowledge



## Coaching week

- Focused half-day sessions to reduce the overhead during coaching week - still enough time to continue daily work
- Repetitions to change the behavior and to consolidate the new skills in the long-term
- Session with theory parts called "Learning Hours" covering the learning objectives and conclude with practicing the theory

## Development weeks

- · Teams practice the new knowledge and consolidate the skills without coaches
- Coaches prepare next Learning Hours
- Teams focus on implementing new features

Master on your own



# Look on what we can achieve together!



## Increase of quality awareness

- · Coach architecture team
- Identify architecture goals and derive "Values and Principles" independent form technologies
- Set up a change process for enabling the teams to define their specific patterns and practices



## Work with legacy code

- Conduct individual trainings and mentoring
- Spread the knowledge with facilitated mob programming sessions
- Provide guidance and support concerning the Java Code generator strategy



## **Master Technical Excellence**

- Unit Test Bootcamp
- Technical Agile Coaching Sessions
- Mob Programming Workshops



Let's start your Technical Agility journey! Reach out to our experts and build a Technical Excellence plan at <a href="mailto:aqt@nagarro.com">aqt@nagarro.com</a>

## We are shaping the company of tomorrow

Nagarro is a global digital engineering leader with a full-service offering, including digital product engineering, digital commerce, customer experience, Al and ML-based solutions, cloud, immersive technologies, IoT solutions, and consulting on next-generation ERP.

We help our clients become innovative, digital-first companies through our entrepreneurial and agile mindset, and we deliver on our promise of thinking breakthroughs. We have a broad and long-standing international customer base, primarily in Europe and North America. This includes many global blue-chip companies, leading independent software vendors (ISVs), other market and industry leaders, and public sector clients. Today, we are over 18,000 experts across 33 countries, forming a Nation of Nagarrians, ready to help our customers succeed. (Status 02/2023)



