## Organizational Quality Practices Explained



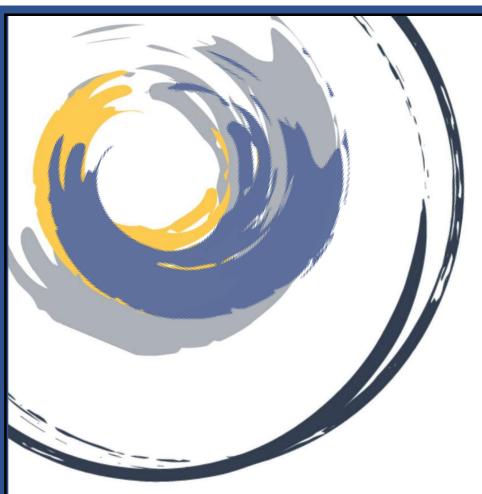




- 1. Recognize the impact and cost of software defects
- 2. Understand what "Built-in Quality" means
- 3. Distinguish the 5 areas of quality practices in the Software Development Life Cycle
- 4. Identify ways to measure quality







## **Software archaeology**

The study of poorly documented or undocumented legacy software implementations

In 2020, the estimated cost of fixing software defects was \$2.08 trillion in the United States alone. In comparison, in 2020 the GDP was 20.89 trillion, making the cost of software bugs equivalent to nearly 10% of the GDP

The software wage base in 2020 was 1.4 trillion, making the cost of defects 1.3 times the total amount of software salaries paid in this country.

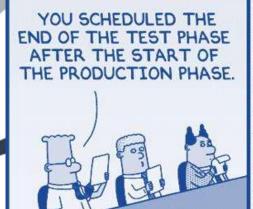
## **Boehm's Law**

"The cost of fixing defects exponentially increases from the time of creation onward"



## **The Cost Of Defects**

Organizations that do not adopt a "Built-In Quality" culture will continue to be part of the statistic that no one wants to be a part of











- Quality Practices, Compliance, and non-functional requirements must be integrated into delivery practices
- Late validation phases do not ensure quality
- Late validation phases only confirm the quality of development value stream practices
- A culture of "never release known defects" must be part of the organization