



Time and cost are negotiable



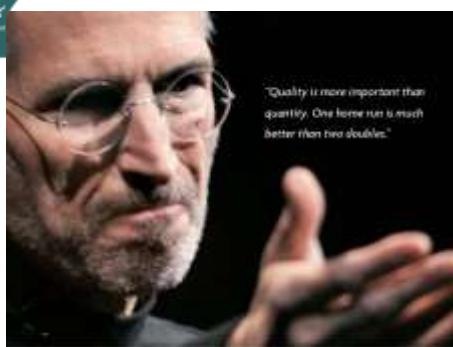
رہنمود جامع النا

دکتر سیامک حاجی یخچالی

عضو هیئت علمی دانشکده فنی دانشگاه تهران



www.DrHajiYakhchali.com



"Quality is more important than quantity. One horse not is much better than two doubles."



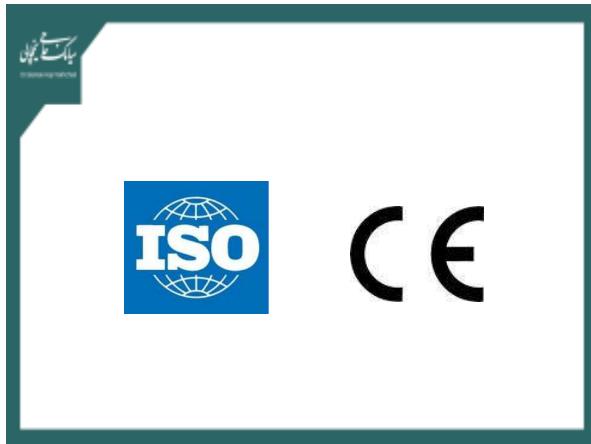
"Design is a funny word. Some people think design means how it looks. But it's really how it works."

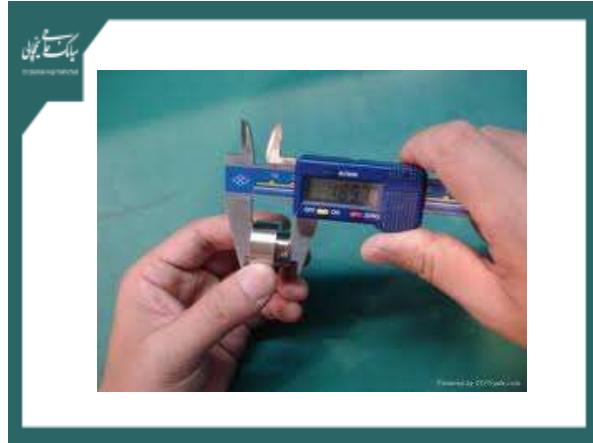
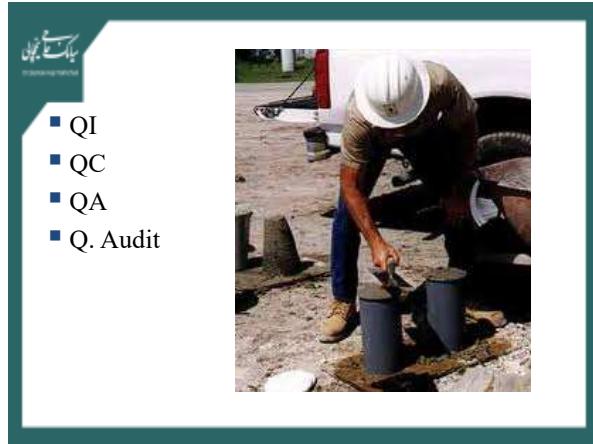
Steve Jobs



یک ده آباد، به از صد شهر خراب







نمونه کیفیت و رتبه در پروژه نرم افزاری

- کیفیت بالا
 - بدون عیب مشهود، داشتن راهنمایی
 - بدون باگ باشد
- رتبه پائین
 - تعداد محدود خصوصیات
 - افتیت سیستم
- کیفیت پایین
 - نتایج بسیار
 - مستندسازی ضعیف ساختاریافته برای کاربر
 - باگ ها و خطاها بسیار
- رتبه بالا
 - دارای خصوصیات بیشمار
 - گزارش ساز، فرم ساز

کیفیت (Quality) یا رتبه (Grade)

A series of red and white bullseye targets arranged in perspective, with several red arrows hitting the bullseye of the first target, symbolizing accuracy and precision.

دقت و صحت (Accuracy) و (Precision)

- A Both accuracy and precision
- B Accuracy only
- C Precision only
- D Neither accuracy nor precision

The screenshot shows a search result for the word 'precision'. The search bar at the top contains the query 'precision'. The main content area displays the following information:

precision [prɪ'sɪʃn] (pronunciation)

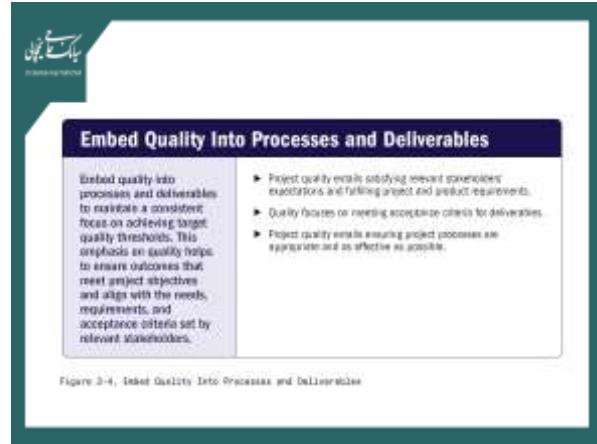
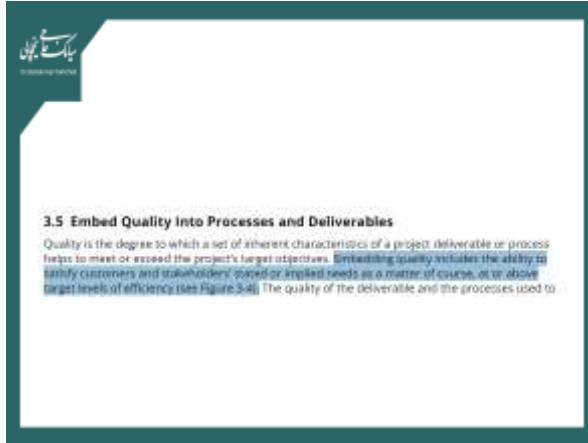
the quality of being very exact or correct
with procedures

4 The word is used contrast with **hasty** procedures (= the work is done in a carelessly planned and hasty way)

precision 7

On the right side of the page, there is a sidebar with the following sections:

- Recent search**
 - adjective (adjective)
 - with procedures
- Phrase search**
 - adjective (adjective)
 - with procedures
- Related topics**
 - data accuracy principles
 - data in a file with consistency
 - data procedures
 - database that stores incomplete



requirement. A condition or capability that is necessary to be present in a product, service, or result to satisfy a business need.



acceptance criteria. A set of conditions that are met before deliverables are accepted. See also requirement.



Acceptance criteria

- Quality focuses on meeting acceptance criteria for deliverables.



Oil Pump vs. Water Pump



stakeholders' expectations

- Project quality entails satisfying stakeholders' expectations and fulfilling project and product requirements.

Example of a prioritization technique – MoSCoW

Each acceptance criterion is rated as either **Must have**, **Should have**, **Could have** or **Won't have for now** (MoSCoW).

All the 'Must have' and 'Should have' acceptance criteria should be mutually achievable.

Examples of quality expectation

The quality expectation for a water pump in a remote village is that it is robust enough to 'last a lifetime', whereas because the oil pump in a racing car needs to be as light as possible, it may only need to last the duration of one race.



Definition of Done (DoD).

- Definition of Done (DoD)
- Or Acceptance Criteria.

❑ A checklist of all the criteria required to be met so that a deliverable can be considered ready for customer use.



Definition of Done (DoD).



8 Dimensions of Quality



Quality dimensions

1. Performance.
2. Conformity.
3. Reliability.
4. Resilience.
5. Satisfaction.
6. Uniformity.
7. Efficiency.
8. Sustainability.
9. Compliance



Performance.

- Do the deliverables or processes function as intended by the project team and other stakeholders?



Gravini's 8 Dimensions of Quality





A Reliable Delivery Management System





Conformity.

- Are the deliverables and processes aligned with specifications and fit for use?









Reliability.

- Do the deliverables and processes maintain the consistency necessary to meet or exceed desired outcomes?









Satisfaction.

- Do the deliverables and processes elicit valuable feedback from customers and/or end users, including usability and user experience?

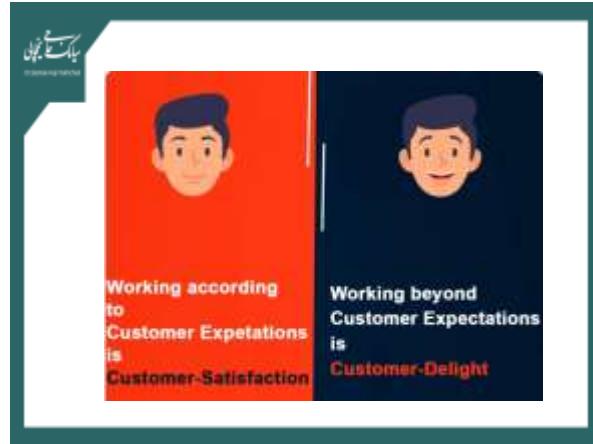




Resilience.

- Can the deliverables and supporting processes cope with unforeseen failures and recover quickly?





Uniformity.

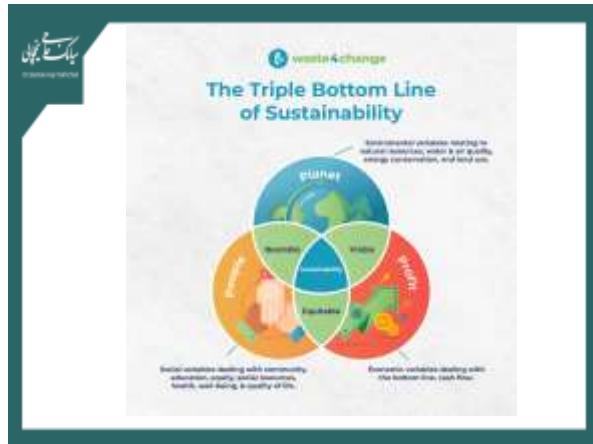
- Do the deliverables and processes demonstrate parity across similar outputs or workflows?



Efficiency

- Are the deliverables and processes optimized to produce the greatest output with the least input?





Sustainability.

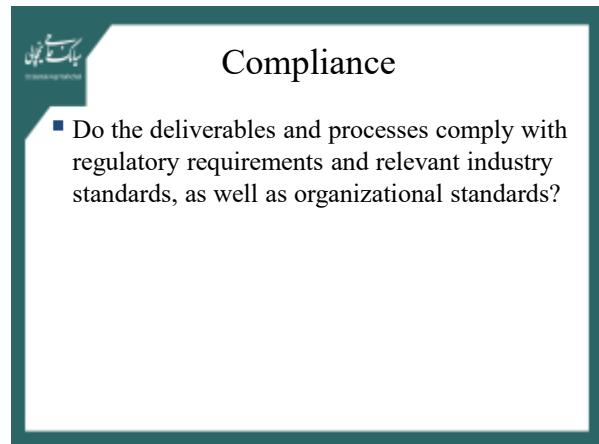
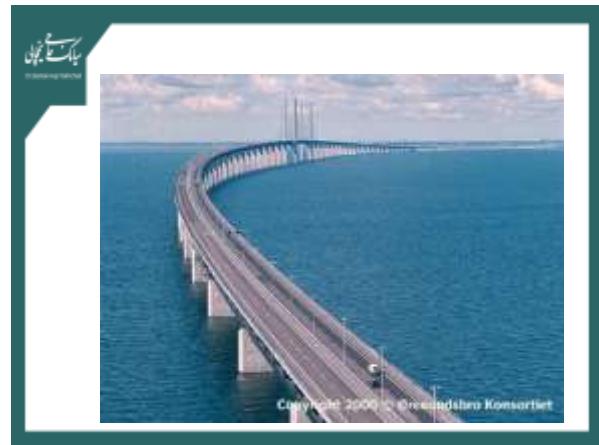
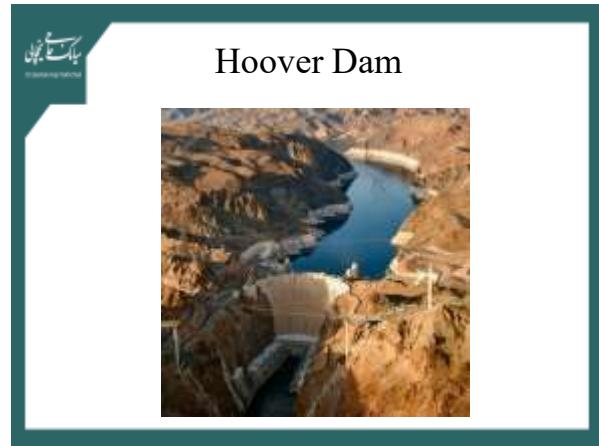
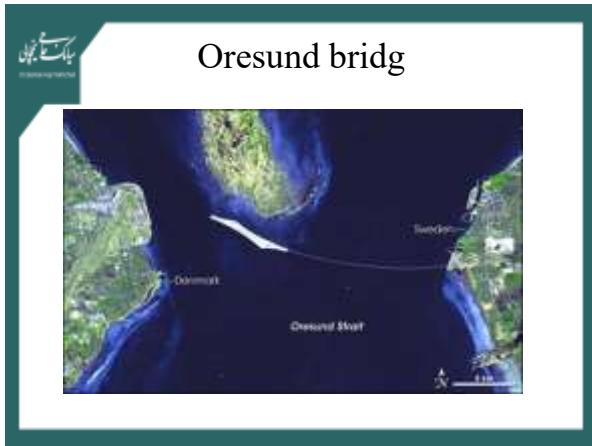
- Do the deliverables and processes contribute positively to economic, social, and environmental outcomes?

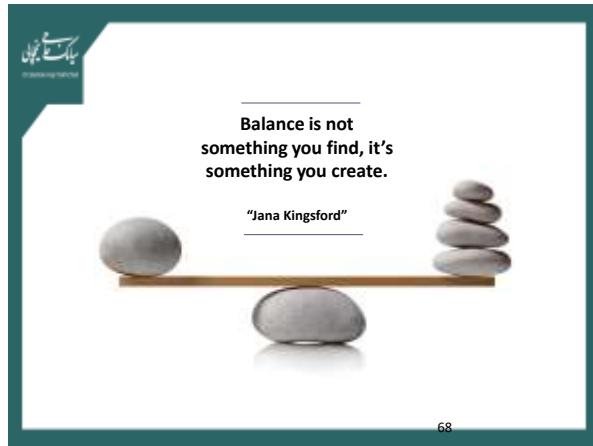


SUSTAINABLE DEVELOPMENT GOALS

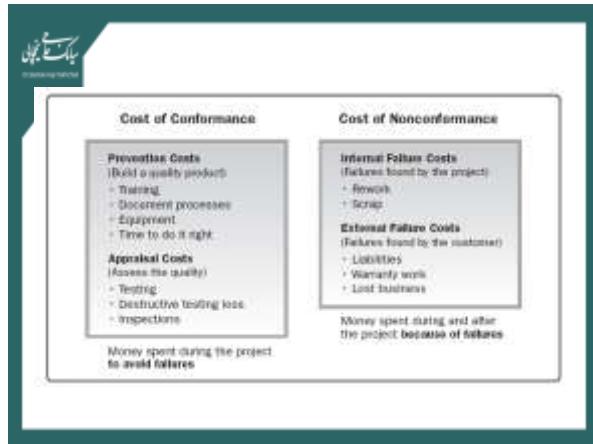
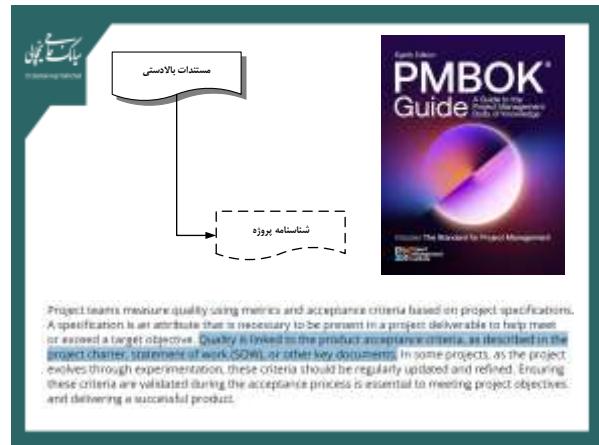
1. NO POVERTY	2. END HUNGER	3. GOOD HEALTH AND WELL-BEING	4. QUALITY EDUCATION	5. GENDER EQUALITY	6. CLEAN WATER AND SANITATION
7. AFFORDABLE AND CLEAN ENERGY	8. INDUSTRY, INNOVATION AND INFRASTRUCTURE	9. INCLUSIVE AND INTEGRATED APPROACHES	10. REDUCED INEQUALITIES	11. PARTNERSHIPS FOR THE GOALS	12. RESPONSIBLE CONSUMPTION AND PRODUCTION
13. CLIMATE ACTION	14. LIFE BELOW WATER	15. LIFE ON LAND	16. PEACE, JUSTICE AND STRONG INSTITUTIONS	17. PARTNERSHIPS FOR THE GOALS	SUSTAINABLE DEVELOPMENT GOALS







Aesthetics



تعمیرات اساسی پالایشگاه ۱۳۹۱- گفایت بروزه

کوره واحد مرکباتن زدایی ناحیه ۱ شرین مازی، کاز پس از عملیات اسیدگذاری، برای اولین بار تعمیرات بر روی تیوب های آتش صورت گرفت. قسمتی از تیوب های مورد نظر بدالیل شمار بالا و بی تکیتی روشی مورد استفاده ایسپ ب دیده بودند که پس از دستورالعمل بازرسی و هنگاری واحد جوشکاری کارگاه مرکزی تعمیر و پس از است، نصب و در سرویس کوار گرفت.



Ultrasonic cleaning of heat exchangers



SMART

S Specific: Make your goal specific and express for more effective planning.

M Measurable: Make sure your goal and progress are measurable.

A Achievable: Make sure you can reasonably accomplish your goal within a certain time frame.

R Relevant: Your goal should align with your values and long-term objectives.

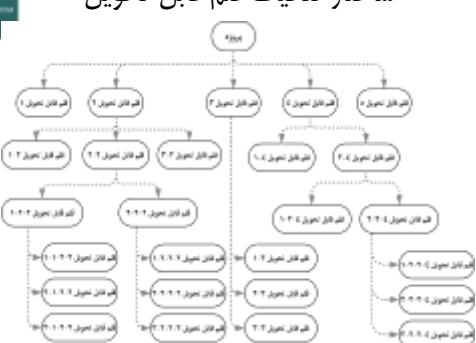
T Time-based: Set a realistic, but challenging and achievable timeline to track progress, learn and derive motivation.

SMART

Specific, Achievable, Timely, Measurable, realistic

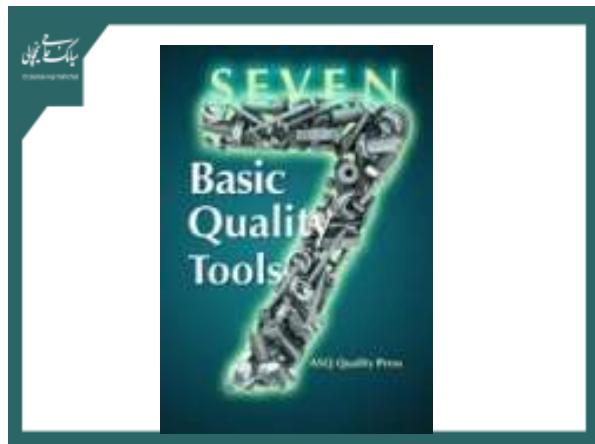
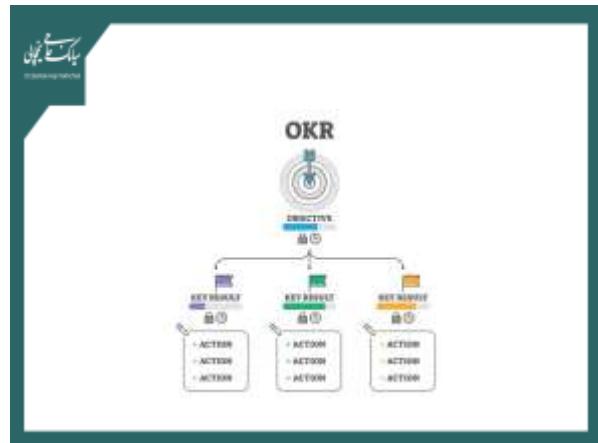
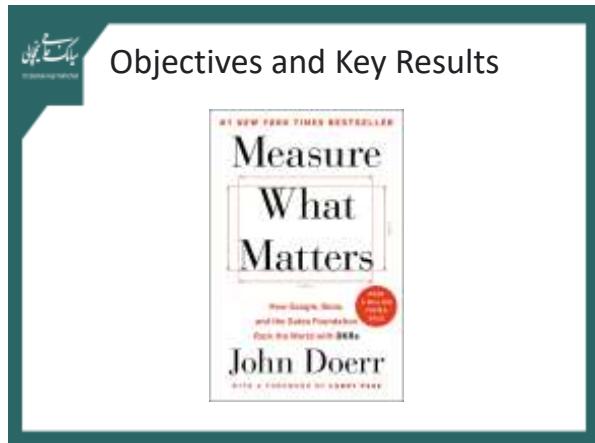


ساختار تفکیک قلم قابل تحویل



ویژگی تفکیک پذیری





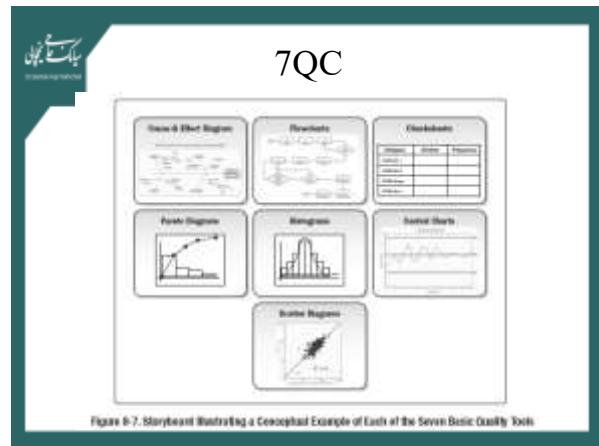


Figure 8-7. Storyboard Illustrating a Conceptual Example of Each of the Seven Basic Quality Tools.