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# Quality of service management in road traffic

## INTRODUCTION

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**Partnership for Promotion and Popularization of Electrical Mobility through Transformation and Modernization of WB HEIs  
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# HISTORY (1)

- ...
  - Quality and quality control is an old human activity - the first preserved records are from the Republic of Venice ...
- throughout history, very severe punishments have been enforced for a low-quality product: work ban, imprisonment, confiscation of property and even physical punishment...
- poor quality in any part of life means a potential source of material losses, even endangering people's lives...
- pollution of water, land, atmosphere, ozone destruction, playing with genetics and nuclear energy, poor quality in education, transport, etc. necessarily resulted in numerous forms of the so-called "external" quality control

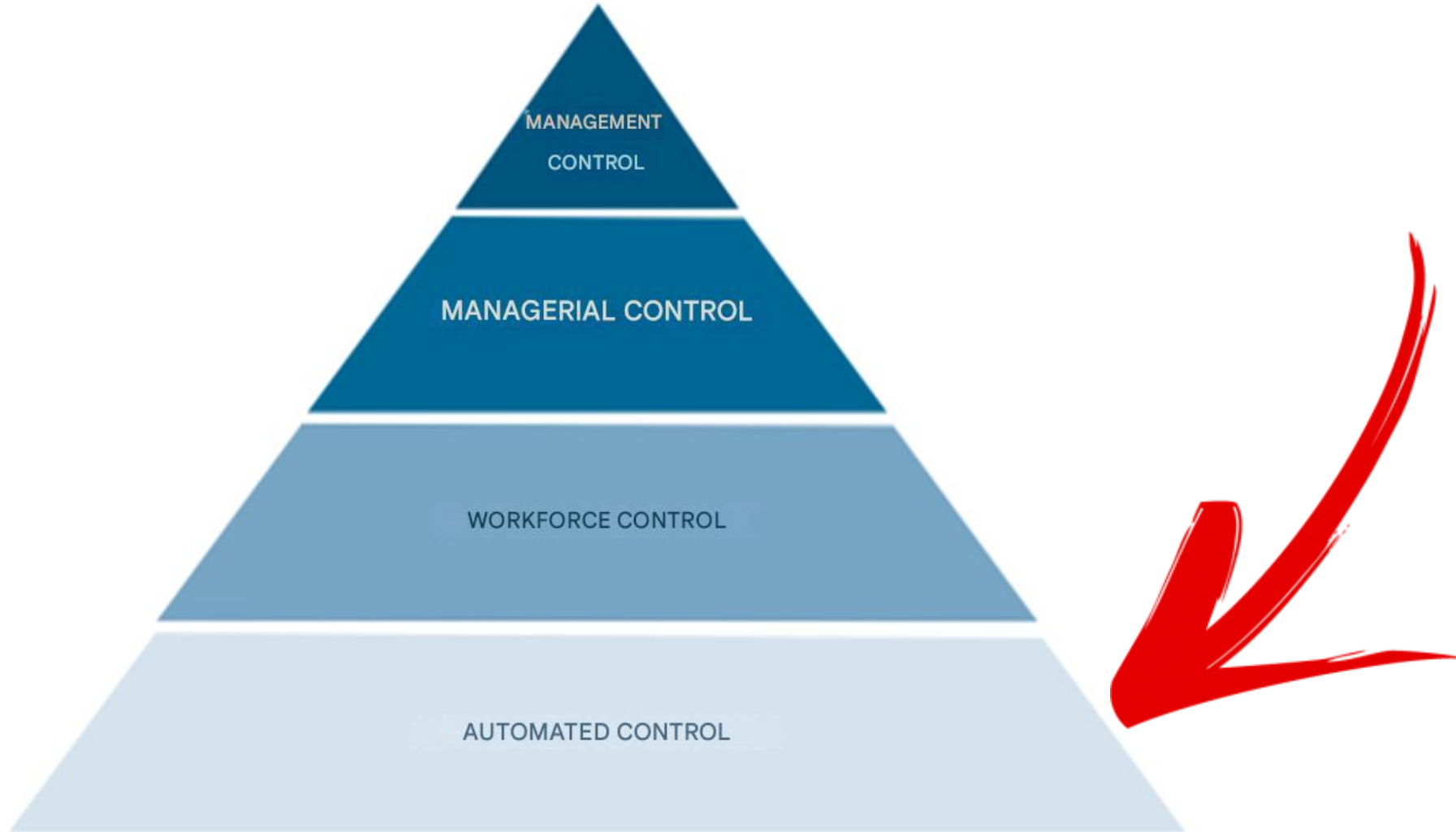
# History (2)

- With the passage of time and the development of quality sciences, the emergence of a large
- number of different definitions of this term...
- In the beginning, quality was simply defined as "perceived customer satisfaction" ... With the development of technology and the increase in user demands for production, quality began to be perceived in different ways ... The most famous "gurus" of quality are Feingbaum, Juran and Crosby ...
- Feingbaum (1997) thus argued that quality is the most significant force that leads to economic growth in international markets, while defining quality as the total set of characteristics of a product or service through which, when used, they will meet the expectations of customers.
- Juran (2003) defined quality as usability for the customer.
- Philip Crosby (1980), on the other hand, defined quality as adapting to customer requirements.

# Quality triangular Izvor: Aikens (2011)



Figure 1.2. Hierarchy of quality control implementation



Source: Juran and Godfrey (1999)

Figure 1.3. The relationship between control, assurance and quality management

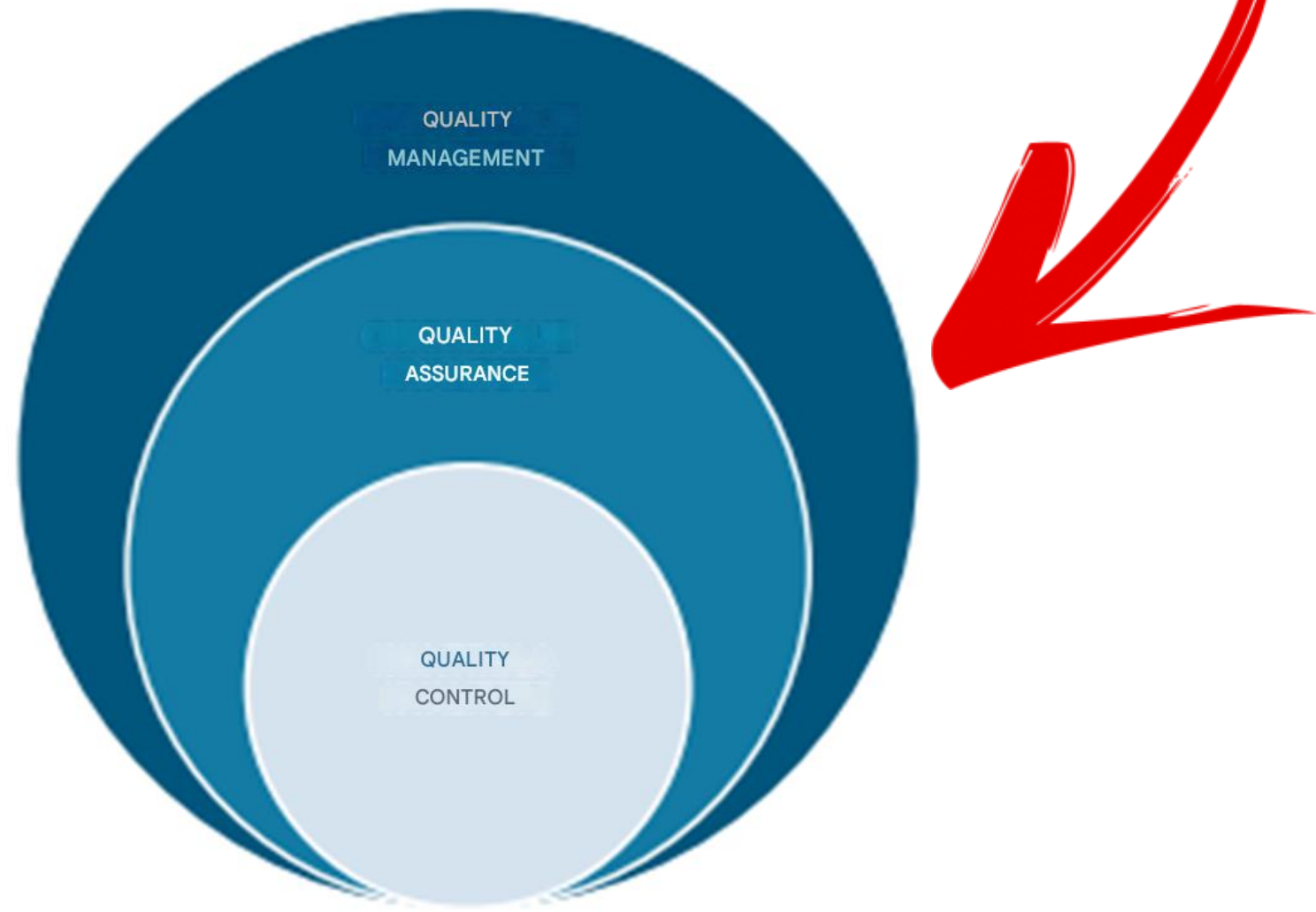
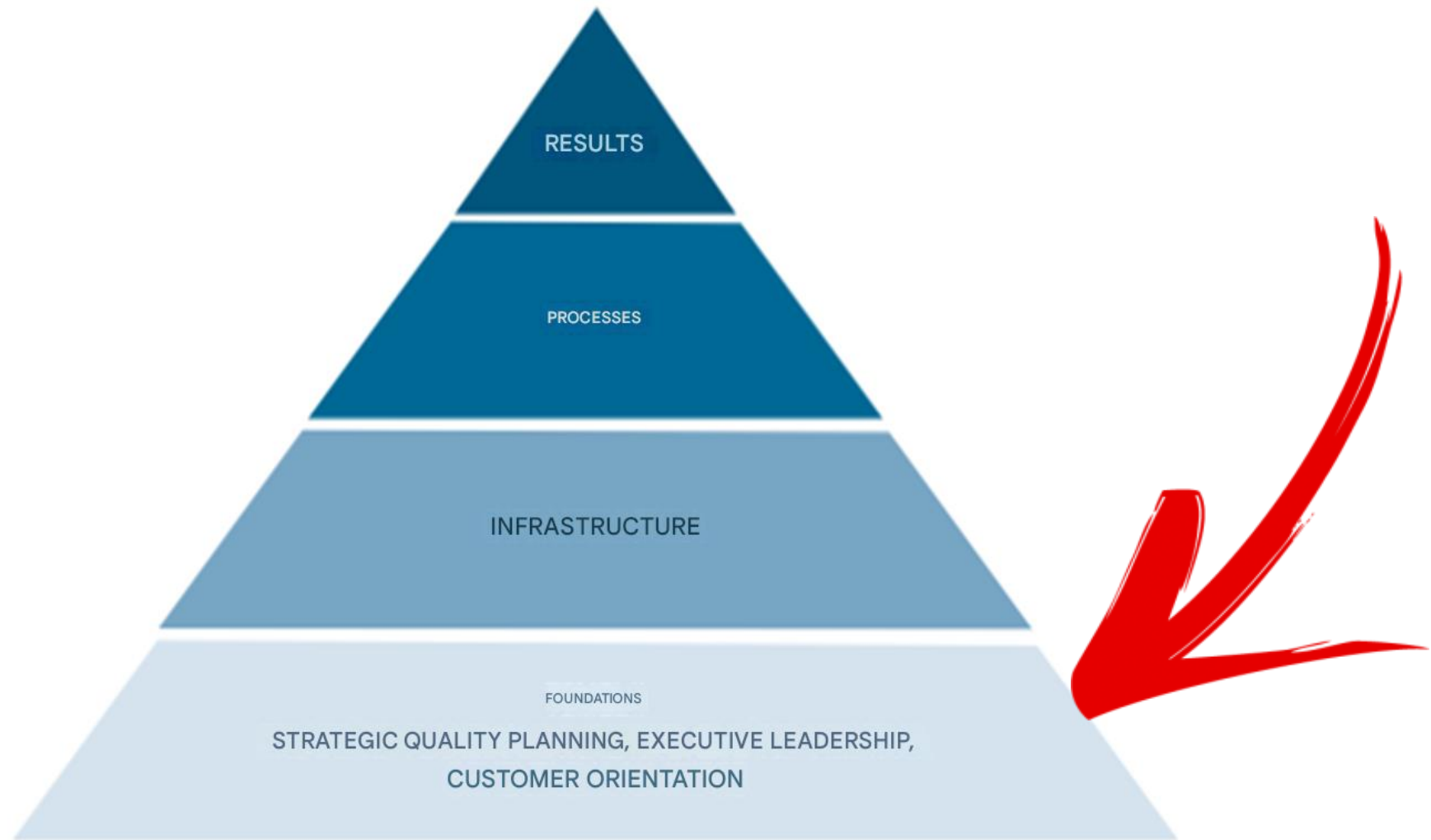


Figure 1.4. Strategic quality planning



Source: Juran and Godfrey (1999)

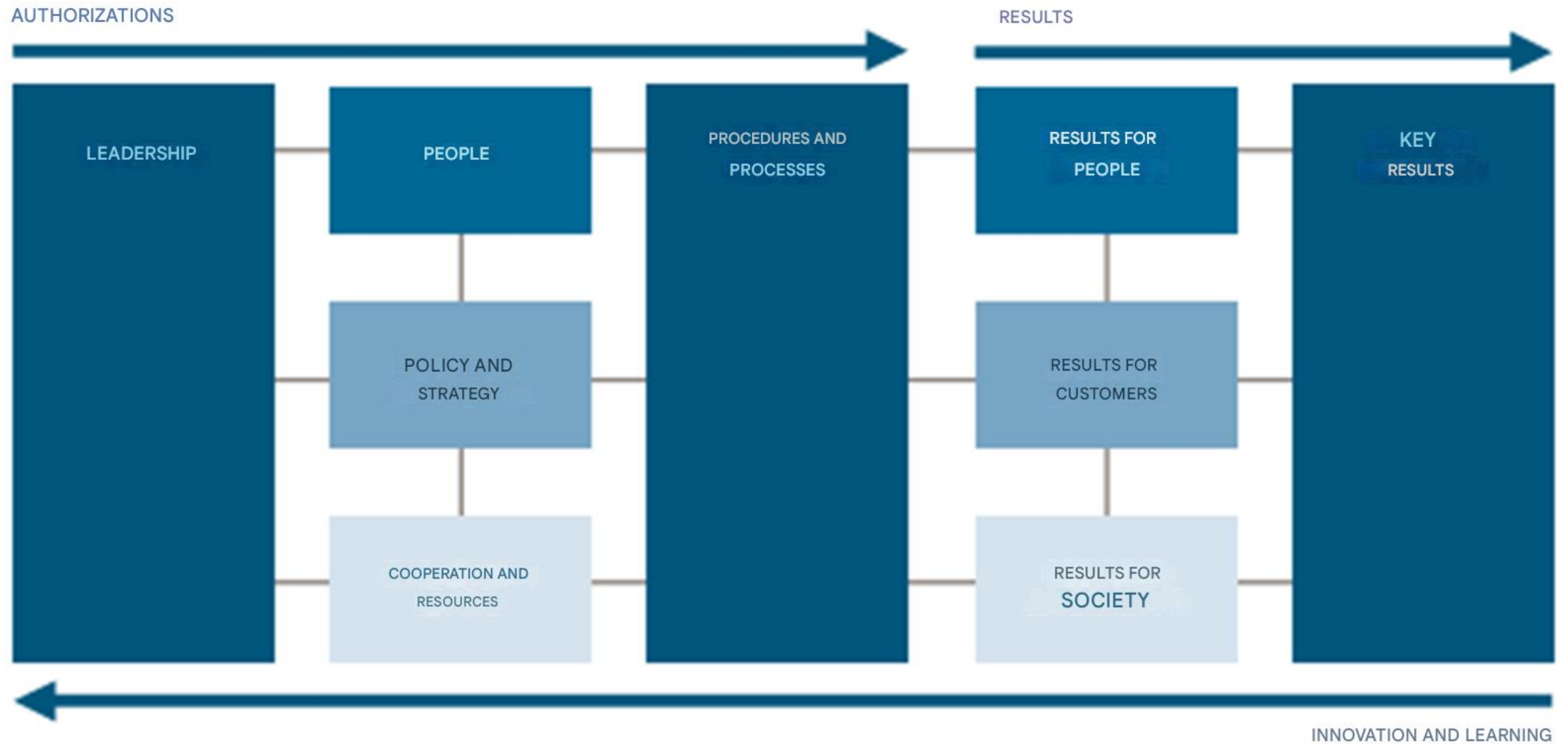
Table 2.1. Division of the principles of the ISO 9001 standard into soft and hard principles of quality management

Principle of the ISO 9001 standard	Belonging to the division into soft and hard principles of quality management
focus on the customer	soft
leadership	soft
involving individuals in the organization	soft
process approach	claims
fact-based decision-making	claims
continuous improvement	soft and hard
relationship management	soft and hard

Source: Damić 2019

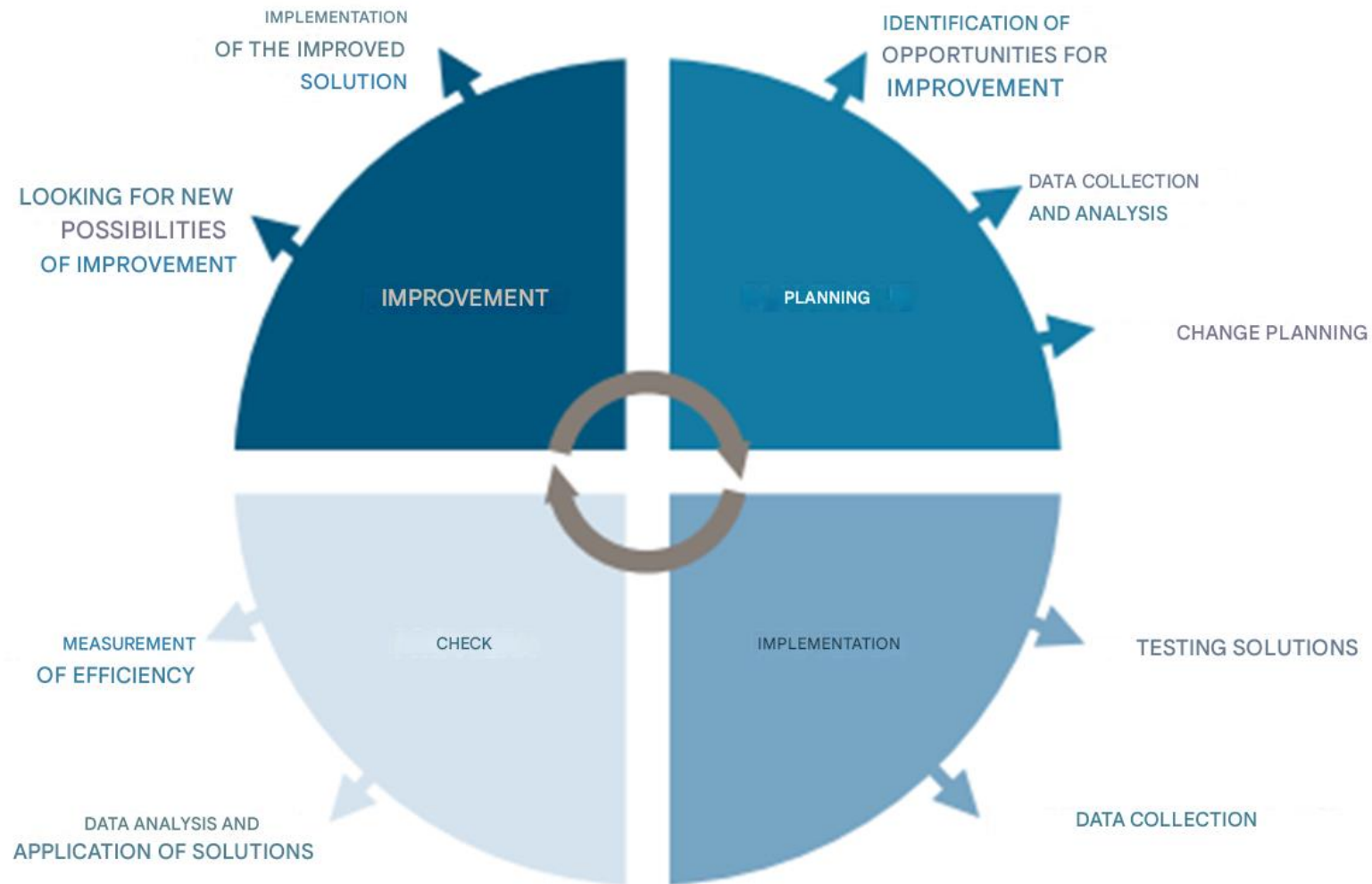


Figure 2.1. EFQM model



Izvor: European Foundation for Quality Management (2020)

Figure 2.2. PDCA circle



Izvor: American Society for Quality (2021B)

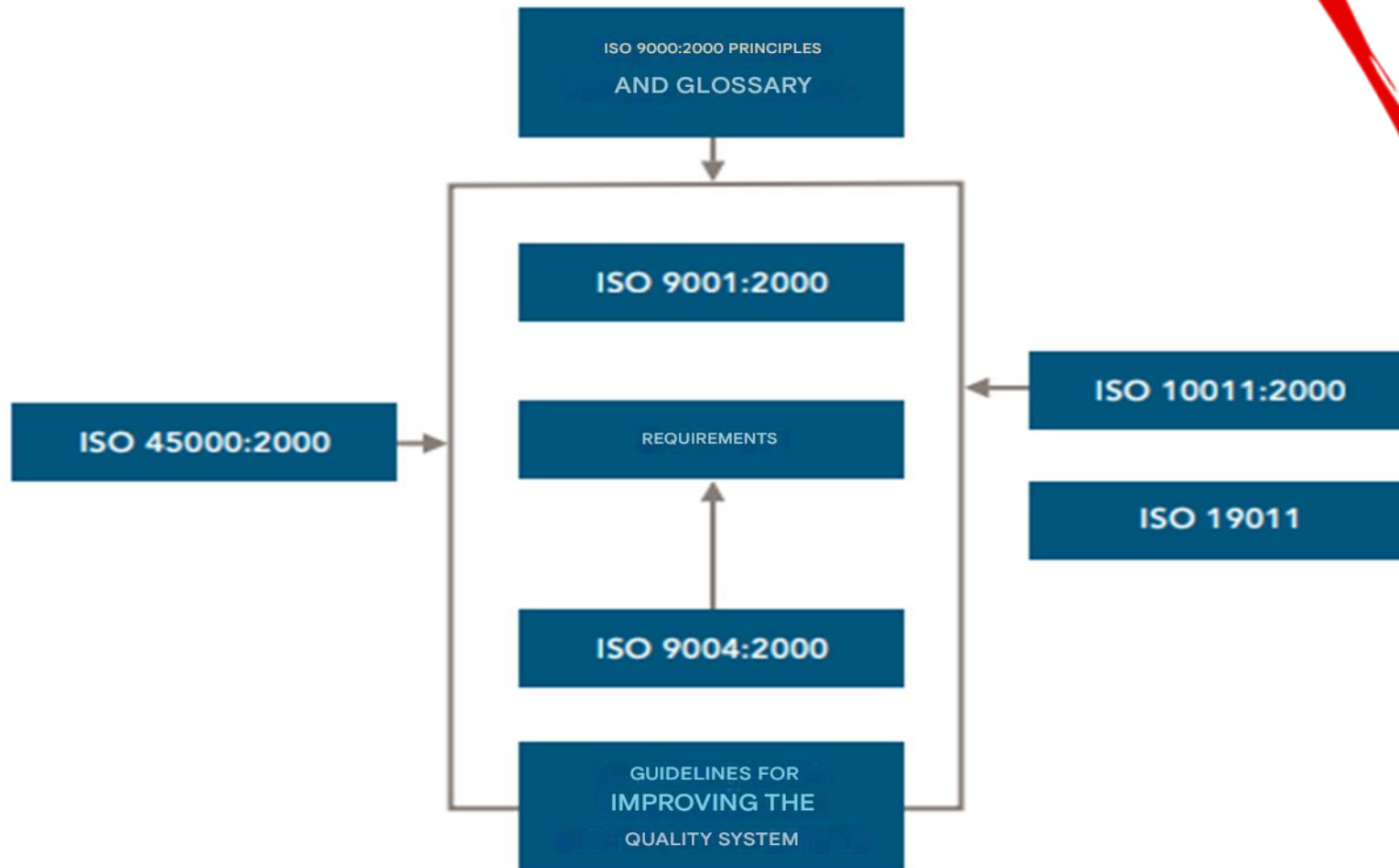
# ISO

The basis of ISO's activities are standards, and according to ISO instructions, "a standard is a document adopted by consensus and approved by a recognized body, which for general and repeated use provides rules, instructions or features for activities or their results in order to achieve the best degree of organization in the given context." (HZN, 1998).

The standardization process itself is defined by ISO as "the activity of establishing provisions for general and repeated use that relate to existing or possible problems in order to achieve the best degree of regulation in a given context" (HZN, 1998).

Today, ISO is composed of 165 national bodies for the standardization of quality management systems, and is headquartered in Geneva. The first ISO norm was published in 1951 and was called ISO / R 1: 1951 Standard reference temperature for measuring industrial length. In the meantime, the norm has undergone several updates, and the latest version is called ISO 1: 2016 Geometrical product specifications (GPS) - Standard reference temperature for geometrical product specifications. In its beginnings, ISO had 67 technical committees which were responsible for the standardization of various industries, and today there are 323 technical committees (ISO, 2020).

# ISO norms Dimond



- official definition according to HRN EN ISO 8402:

Quality is a set of properties (ethnicity) that make it capable of satisfying expressed or assumed needs (requirements) ...

- after the audit in 2000 according to the ISO 9000: 2000 norm

- quality is the degree to which a set of properties or characteristics meets the requirements with notes:

- the concept of quality can be used with attributes:  
insufficient, good, excellent...

- property means "existence in something" or "permanent characteristic" ...



- road quality - the level up to which the set
- functional characteristics meet the requirements ...
- quality management - part of quality management focused on meeting quality requirements...
- **quality management** - coordinated activities for managing the road system in relation to the quality and exploitation management...