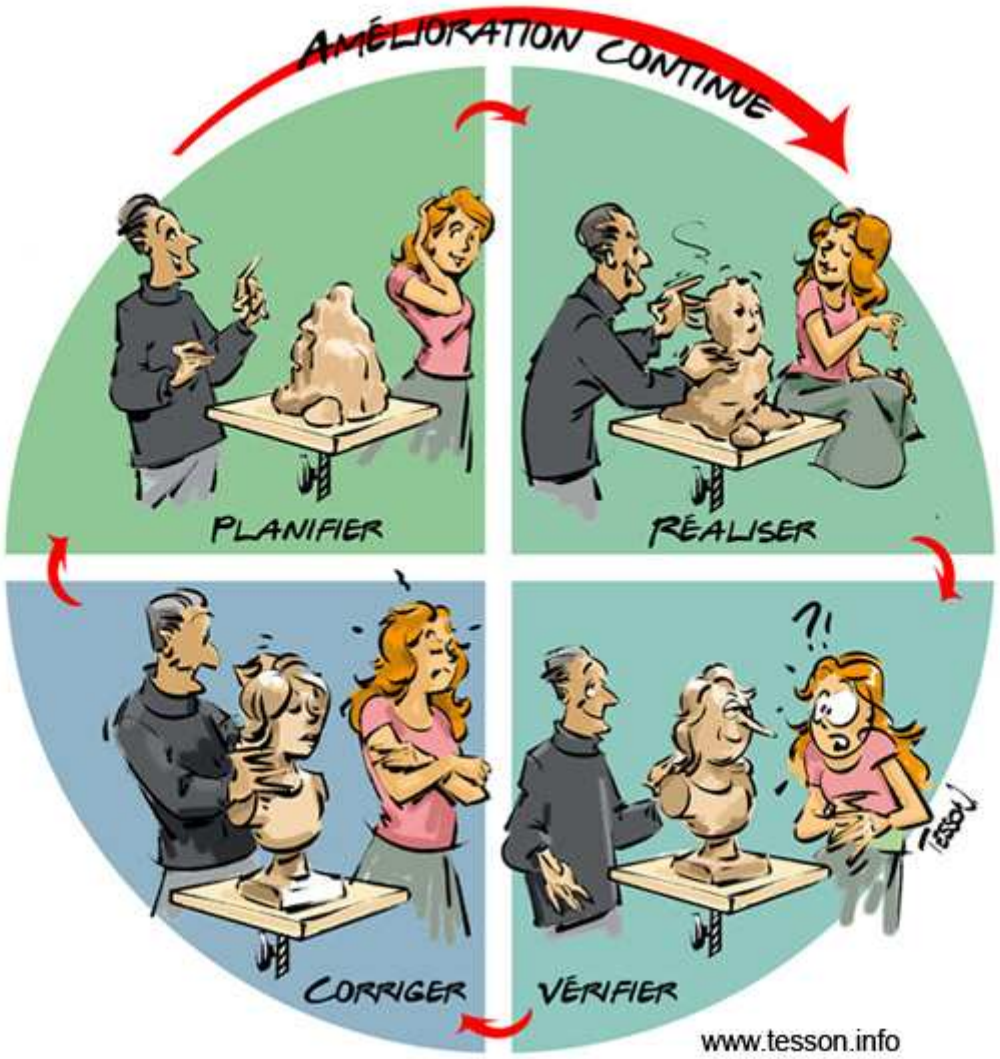
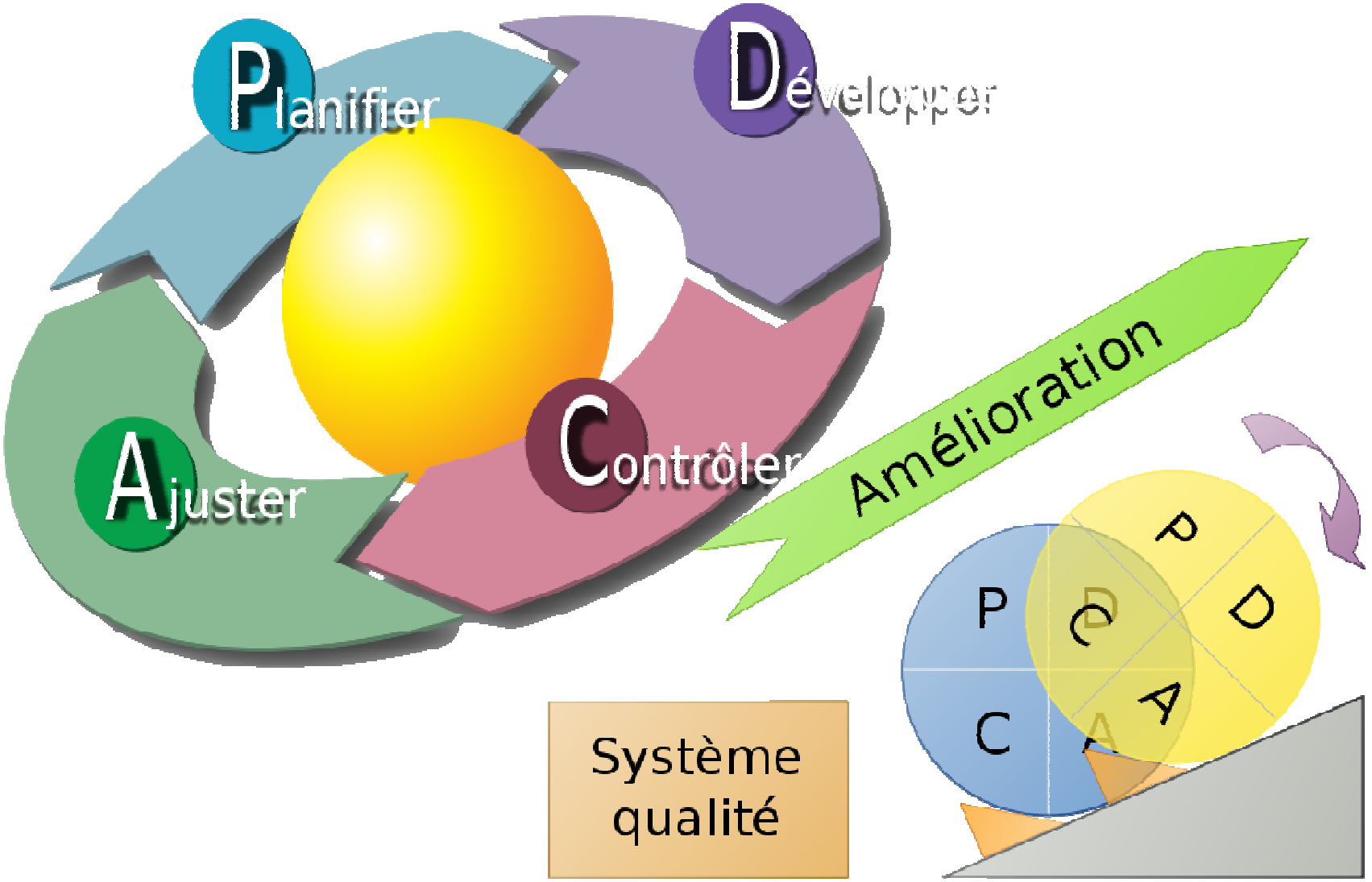
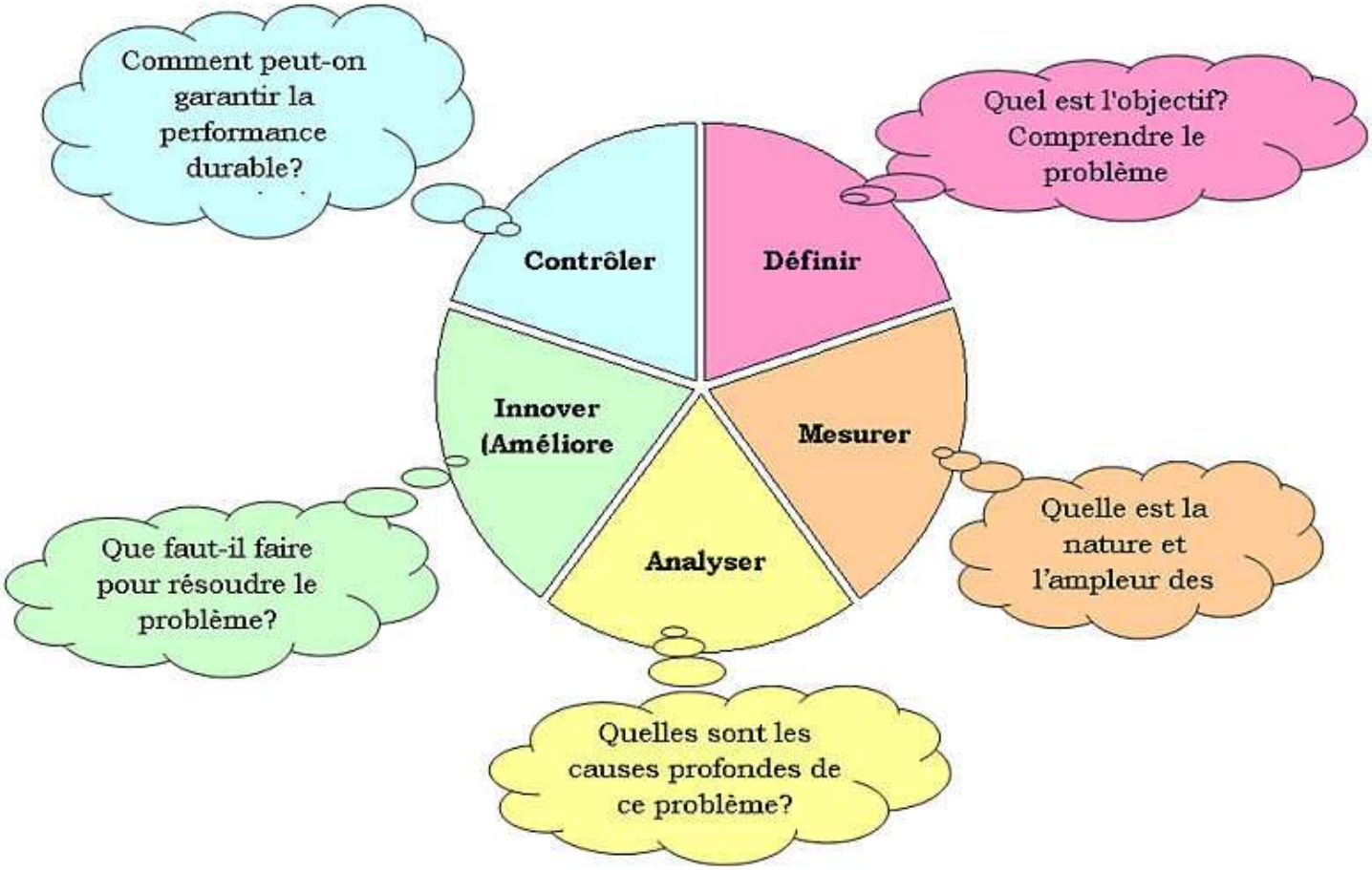


La roue de Deming ou méthode de PDCA

Roue de Deming



DMAIC



Définir : Voix du client, SIPOC (Supplier Input Process Output Customer, cartographie des processus)

Mesurer : Analyse de systèmes de mesure (Gage R&R,linéarité, diagrammes d'Ishikawa)

Analyser : Cartographie détaillée des processus, tests d'hypothèses (ANOVA, χ^2, tests de variances, plans d'expérience

Améliorer : Plans d'expériences, AMDEC, poka yoke

Contrôler: Plans d'expérience, MSP

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Building a Protocol Expressway: The Case of Mayo Clinic Cancer Center

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Abstract

Purpose Inconsistencies and errors resulting from non with redundancies, rework, and excess workload, lead clinical trial protocol development. This results in diss investigators, and staff and restricts the availability o patients.

Methods A team of experts from Mayo Clinic formed, including Protocol Development Unit staff and management from the three Mayo Clinic campuses (Florida, Minnesota, and Arizona), a systems and procedures analyst, a quality office analyst, and two physician members to address the identified deficiencies. The current-state process was intensively reviewed, and improvement steps were taken to accelerate the development and approval of cancer-related clinical trials. The primary goal was to decrease the time from receipt of a new protocol through submission to an approving authority, such as the National Cancer Institute or institutional review board.

Results Using the Define, Measure, Analyze, Improve, Control (DMAIC) framework infused with Lean waste-reduction methodologies, areas were identified for improvement, including enhancing first-time quality and processing new studies on a first-in/first-out basis. The project was successful in improving the mean turnaround time for internally authored protocols ($P < .001$) from 25.00 weeks (n = 41; range, 3.43 to 94.14 weeks) to 10.15 weeks (n = 14; range, 4.00 to 22.14 weeks). The mean turnaround time for externally authored protocols was improved ($P < .001$) from 20.61 weeks (n = 85; range, 3.29 to 108.57 weeks) to 7.79 weeks (n = 50; range, 2.00 to 20.86 weeks).

Conclusion DMAIC framework combined with Lean methodologies is an effective tool to structure the definition, planning, analysis, and implementation of significant process changes.