Leadership and Management

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Course Code: GELM 275, Course Name: Leadership and Management

Credit Hour: 2.00, **Contact Hour:** 2.00; **Course Curriculum:** Outcome Based Education (OBE)

Objectives:

1. To introduce different management functions and approaches
2. To expose students to different views and styles of leadership
3. To understand how an organization functions collaboratively with managers and engineers
4. To understand various personality traits and its impact on leadership and management
5. To solve real-world management problems as an engineer

Course Learning Outcome:

- **CO1** – Familiarize with the fundamental concepts of leadership and management skills
- **CO2** – Explain the role and contribution of a leader in achieving organizational goals
- **CO3** – Outline the contribution of leadership traits and management skills in decision making and solving real life problems

Two Sections: A & B – 14 Sessions/ Classes each

Marks Distribution for a 2.00 Cr Hr Theory Course		
Criteria	**% Marks**	**Marks in 200**
Class Test	20%	40
Mid-term Exam	10%	20
Class Performance	5%	10
Class Attendance	5%	10
Final Exam	60%	120
Total	**100%**	**200**

Study References:

1. Management Principles and Practices- Ricky W. Griffin -11th edn.
2. Essentials of Management Harold Koontz, Heinz Weihrich, 9th edn.
3. Leadership in Organizations – Gary Yukl.
4. On Becoming A Leader – Warren G. Bennis
5. *Engineering Management (Revised Edition) – A.K. Gupta*
6. *Industrial Engineering and Production Management - Martand T. Telsang*
7. *Developing Management Skills – David A. Whetten and Kim S. Came.*



Introduction to Leadership and Management

- Understanding Leadership and Management
- Leadership & Management – Basic Differences
- Efficiency & Effectiveness
- Qualities of Leaders and Managers

What is Leadership?

- It is the behavior of an individual directing the activities of a group toward a shared goal
- It is the process of influencing the activities of an organized group toward goal achievement
- It is about articulating visions, embodying values, and creating the environment within which things can be accomplished
- It is a process of giving purpose (meaningful direction) to collective effort, and causing willing effort to be expended to achieve purpose

What is Leadership?

- It is the **ability of an individual to influence, motivate, and enable others to contribute toward the effectiveness and success** of the organization
- It is the process of influencing others to understand and agree about what needs to done and how to do it, and the process of facilitating individual collective efforts to accomplish shared objectives effectively
- It is the art of influencing others to their maximum performance to accomplish any task, objective or project

To Summarise…



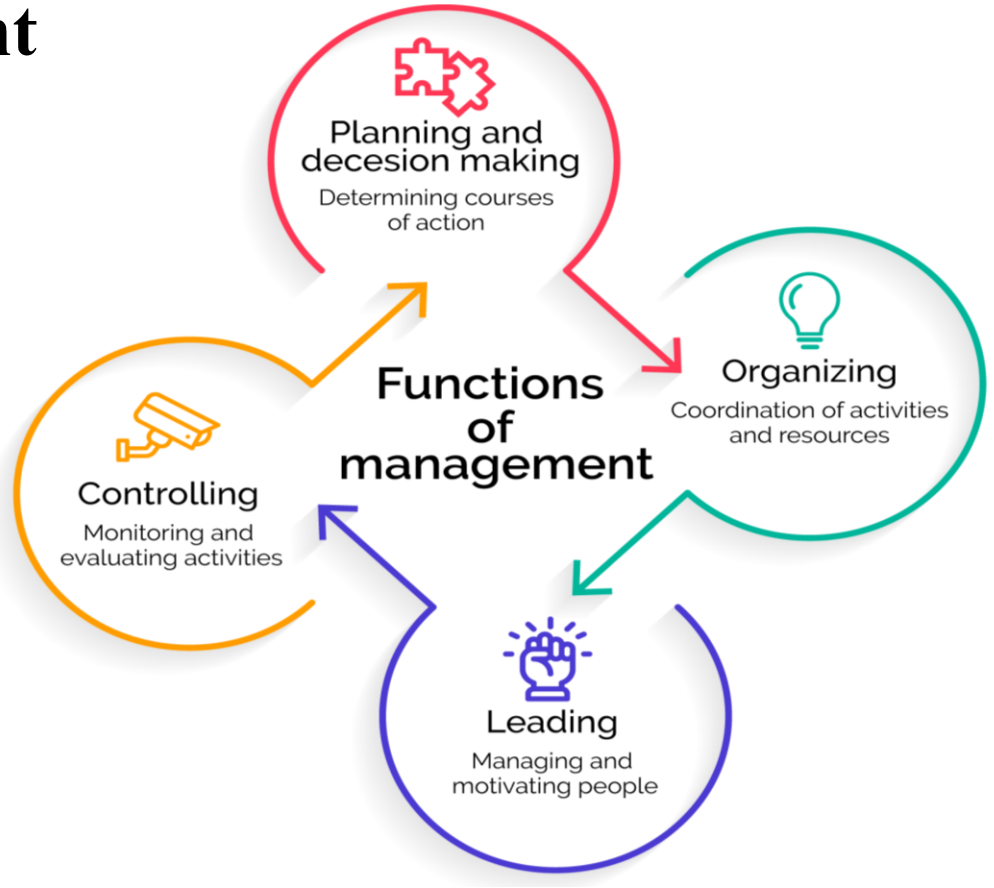
- Ability of an individual to influence others towards a goal
- Process of influencing and motivating people to achieve success
- Formal/ informal **goal-influential process** between a leader and follower/ organization
- Art of influencing others to perform maximally to accomplish an objective

- Leadership is an effective function of:

The leader, The follower(s), The goal/ task & Resources

Management

Process of planning, organizing, staffing, leading, and controlling an organization's **human, financial, physical, and information resources** to achieve organizational goals efficiently and effectively



It is the **process of designing and maintaining an environment** in which individuals, working together in groups, efficiently accomplish selected aims

Management

- Management is concerned with productivity, implying efficiency and effectiveness
- Management is both **Science and Art!**
- Management is an effective and efficient function of:

  The manager, The staff and teams, The organizational goal, Elements of production/resources, The system involving planning, organizing, staffing, leading & controlling

Comparing Leadership & Management

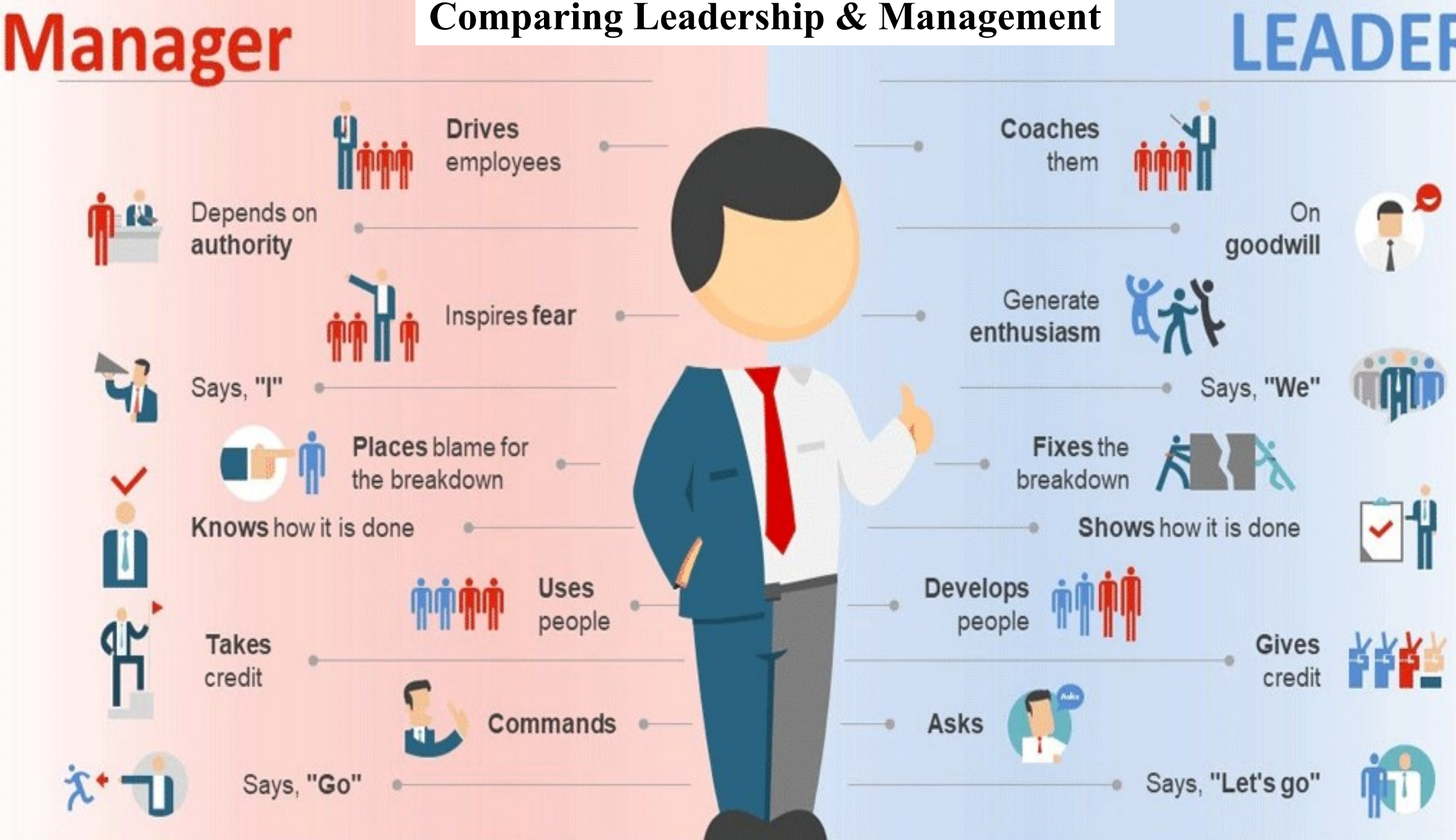
There are important distinctions between managing and leading people. The most important differences that set leaders apart:

- Leaders create a vision, managers create goals
- Leaders are change agents; managers maintain the status quo
- Leaders take risks, managers control risk
- Leaders are in it for the long haul, managers think short-term
- Leaders grow personally, managers rely on existing, proven skills.
- Leaders build relationships, managers build systems and processes
- Leaders create fans, managers have employees

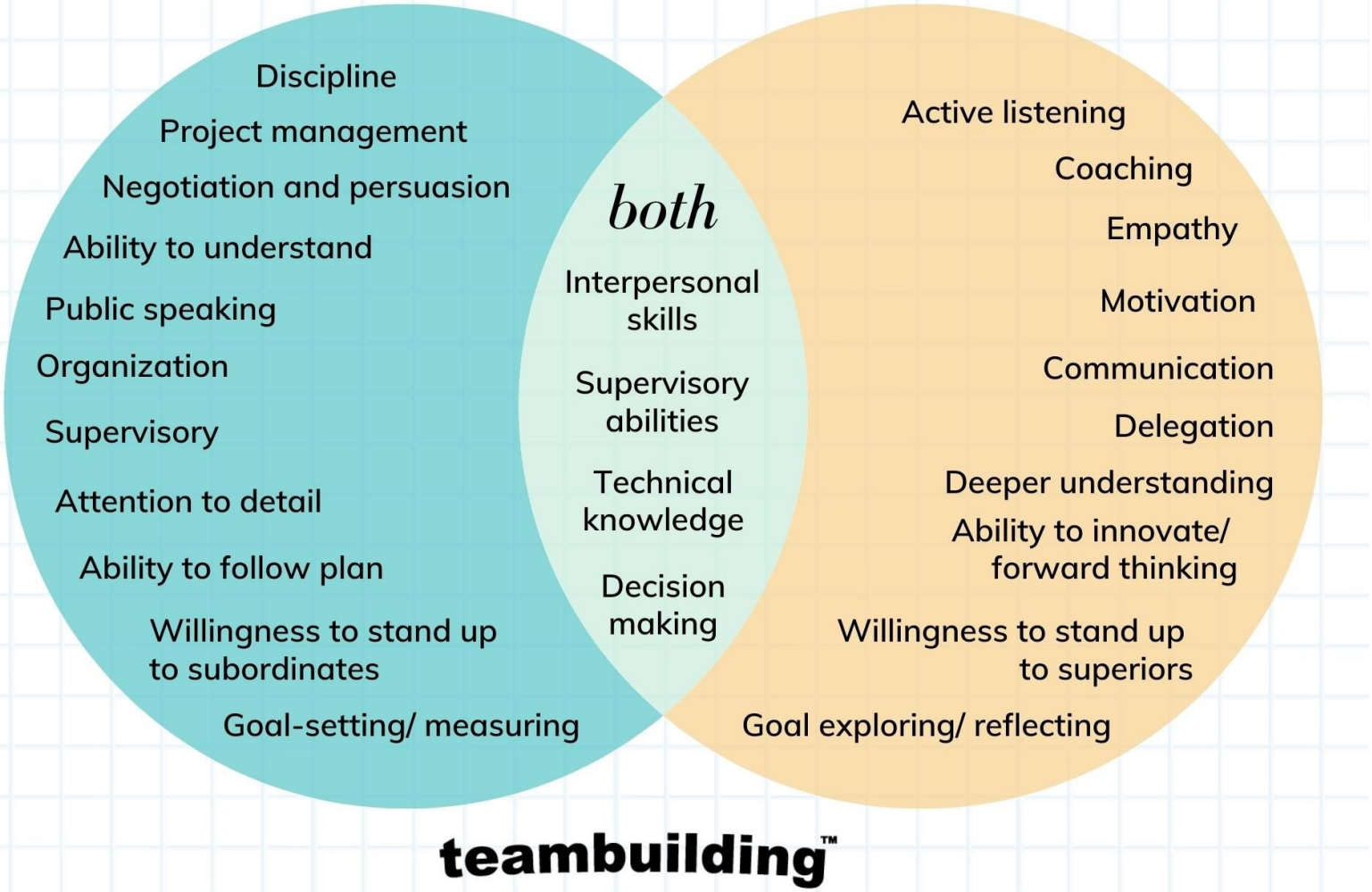
Comparing Leadership & Management

	Managers	Leaders
Focus	**Transactional** Meeting objectives and delegating tasks	**Transformational** Developing a vision and a way forward
Priority	**Work** Goal is to get things done; task management	**People** Care about you and want you to succeed; behavioural focus
Team	**Subordinates** Lead through authority and task management; telling	**Followers** Lead through inspiring and circles of influence; involve & motivate
Ethics	**Do things right** Follow the rules and maintain status quo	**Do the right things** Shape the culture and act with integrity, break rules if required

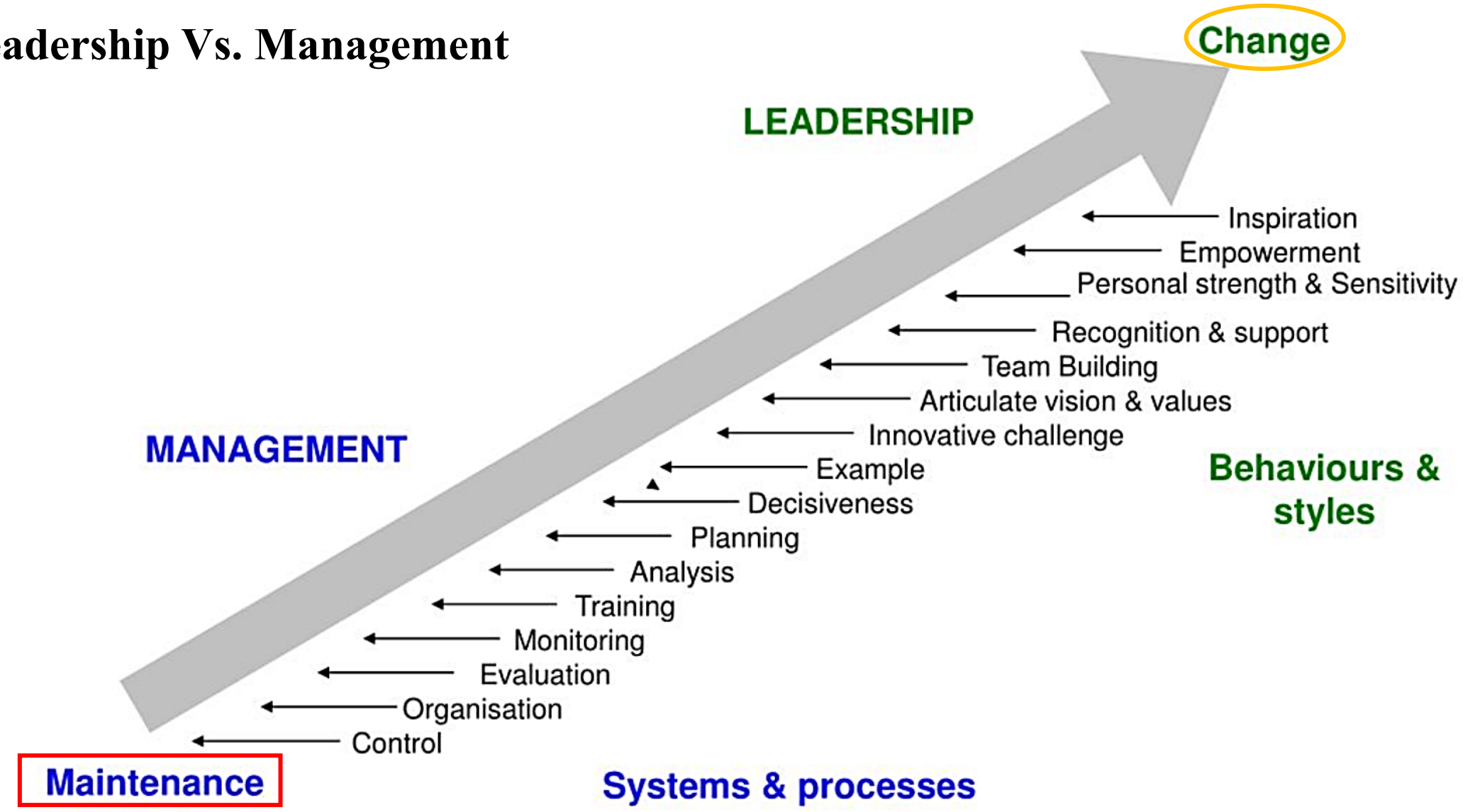
Comparing Leadership & Management



MANAGEMENT *VS* LEADERSHIP



Leadership Vs. Management



Comparing Leadership & Management – Effectiveness vs Efficiency

- **Efficiency** is the ability to produce an intended result in the way that results in the **least waste of time, effort, and resources**

- **Effectiveness** is the ability to produce a better result, one that delivers more value or **achieves a better outcome**

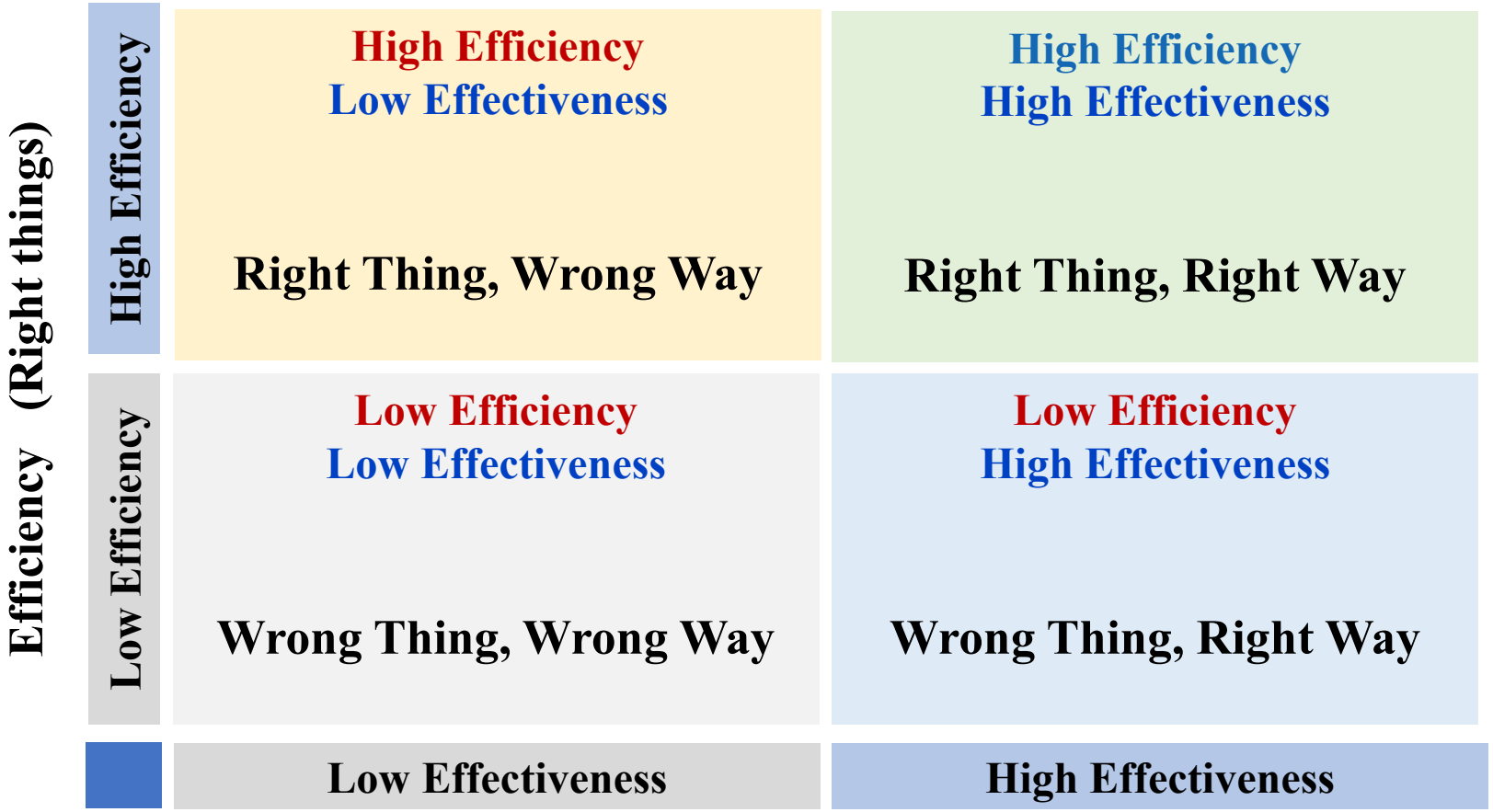
Comparing Leadership & Management – Effectiveness vs. Efficiency

Effectiveness	Efficiency
Doing the right things	Doing things right
Being Adequate to accomplish a purpose; producing the intended or expected result	Performing or functioning in the best possible manner with the least waste of time and effort
Focus	***Focus***
• To Achieve Goal • Alignment with Goals • Optimize Vs. Minimize • Increase Opportunities • Long-term / Broad Scope	• To Enhance Process • Speed • Minimize Resource Usage • Reduce Costs & Efforts • Short-term / Narrow Scope





Comparing Leadership & Management – Efficiency and Effectiveness Matrix



Comparing Leadership & Management – Qualities

LEADERS

- Be humble
- Lead by example
- Communicate effectively
- Know your limits
- Keep meetings productive
- Be emotionally aware
- Learn from the past
- Never stop improving



MANAGERS

- Expect excellence
- Communicate regularly by providing meaningful feedback in real time
- Don't avoid conflict, but deal with it directly and fairly
- Be open to new ways of looking at things
- Accept that you still have a lot to learn
- Set a good example
- Be decisive
- Be patient with yourself

Great Engineer Leaders in History



Nikola Tesla (1856-1943)

- An Austro-Hungarian, emigrated to the U.S. as a physicist
- Inventor, electrical engineer, mechanical engineer, and futurist.
- He is known for his contributions to the design of the modern alternating current electricity supply system
- He pioneered the generation, transmission, and use of alternating current electricity, which can be transmitted over much greater distances than direct current.
- A **Tesla coil** is an electrical resonant transformer circuit designed by inventor Nikola Tesla in 1891

Great Engineer Leaders in History

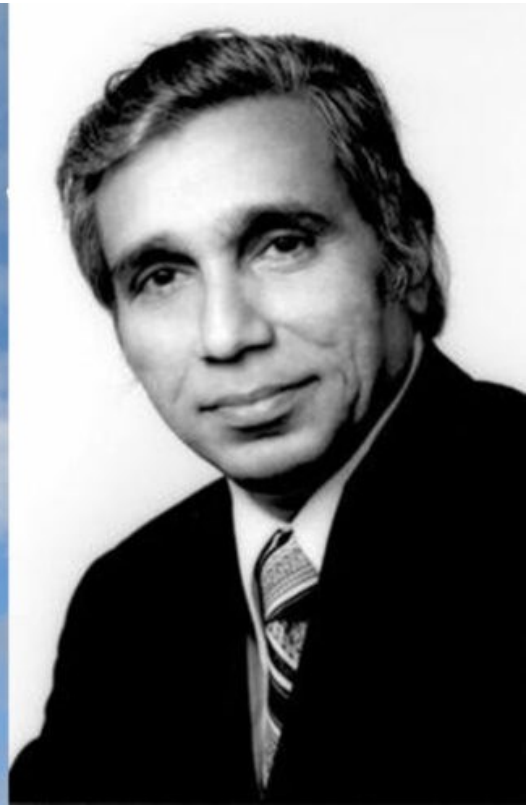


Henry Ford (1863-1947)

- Didn't cross **8th grade** in school but was Chief Engineer in Edison Illuminating Company of Detroit
- Innovations: introducing cars affordable for middle to lower middle class
- Had great publicity and media handling ideas
- A pioneer of "welfare capitalism", designed to improve the workers' lifestyle and also increase efficiency
- Introduced 5 working days in a week but boosted productivity
- One of the greatest entrepreneurs

Great Engineer Leaders in History





Fazlur Rahman Khan (1929-1982)

- Civil engineer, specialized in structural engineering
- Known as the "Einstein of structural engineering
- A pioneer to introduce tubular design in skyscraper design and construction
- Great innovator
- Famous quote: "The technical man must not be lost in his own technology; he must be able to appreciate life, and life is art, drama, music, and most importantly, people."

Great Engineer Leaders in History



(15 November 1942 – 28 April 2020)

Dr Jamilur Reza Choudhury

- Ekushey Padak (2017), Sheltech Award (2010)
- Bangladesh Engineering Institution Gold medal (1998)
- Dr. Rashid Gold medal
- Lions International (District-315) Gold Medal
- Received an honorary doctorate degree from the University of Manchester. Only Bangladeshi, who received a doctorate degree in Engineering from a British university
- JICA Recognition Award
- Ribbon bar Order of the Rising Sun, Gold Rays

Questions