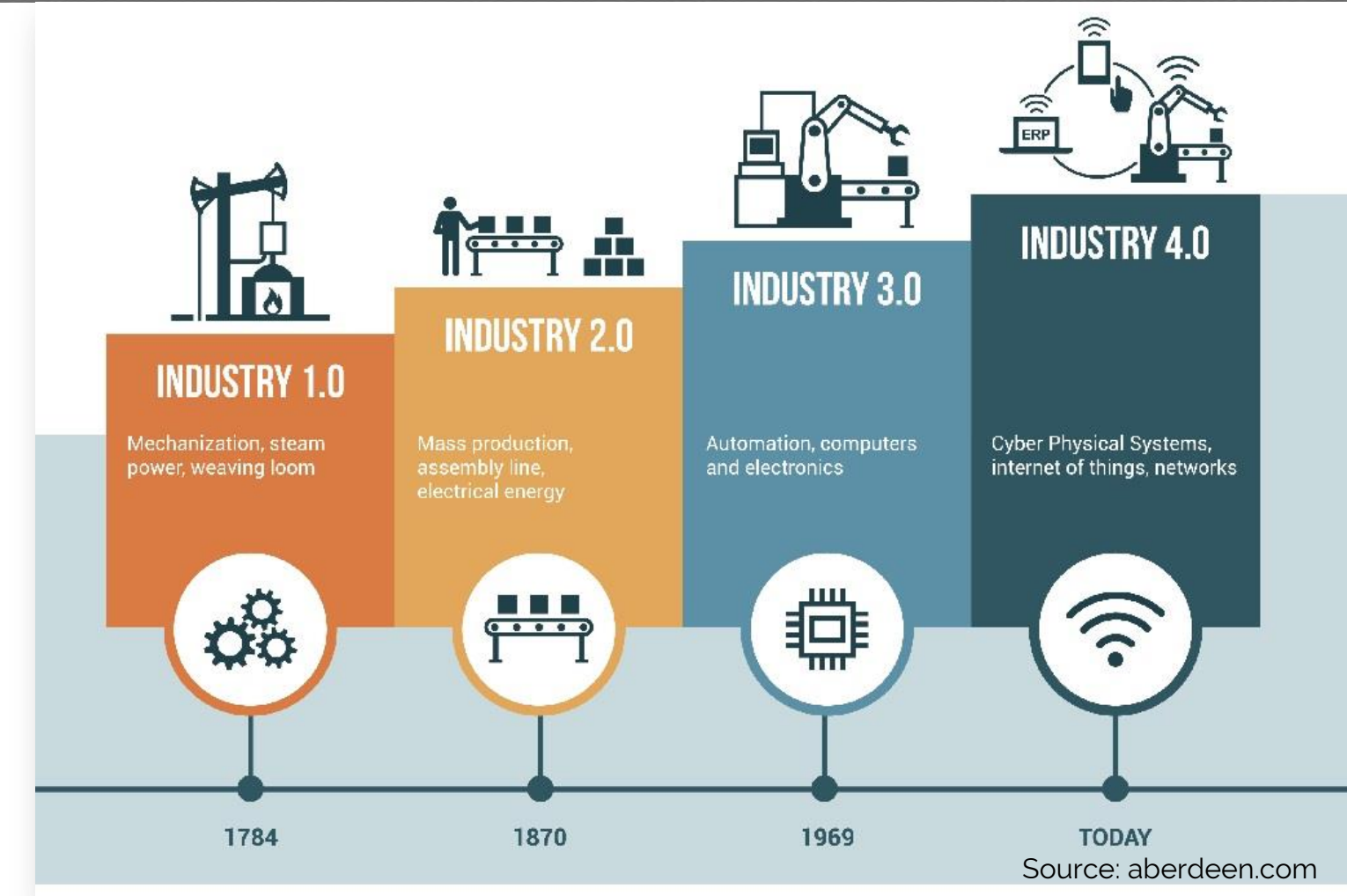
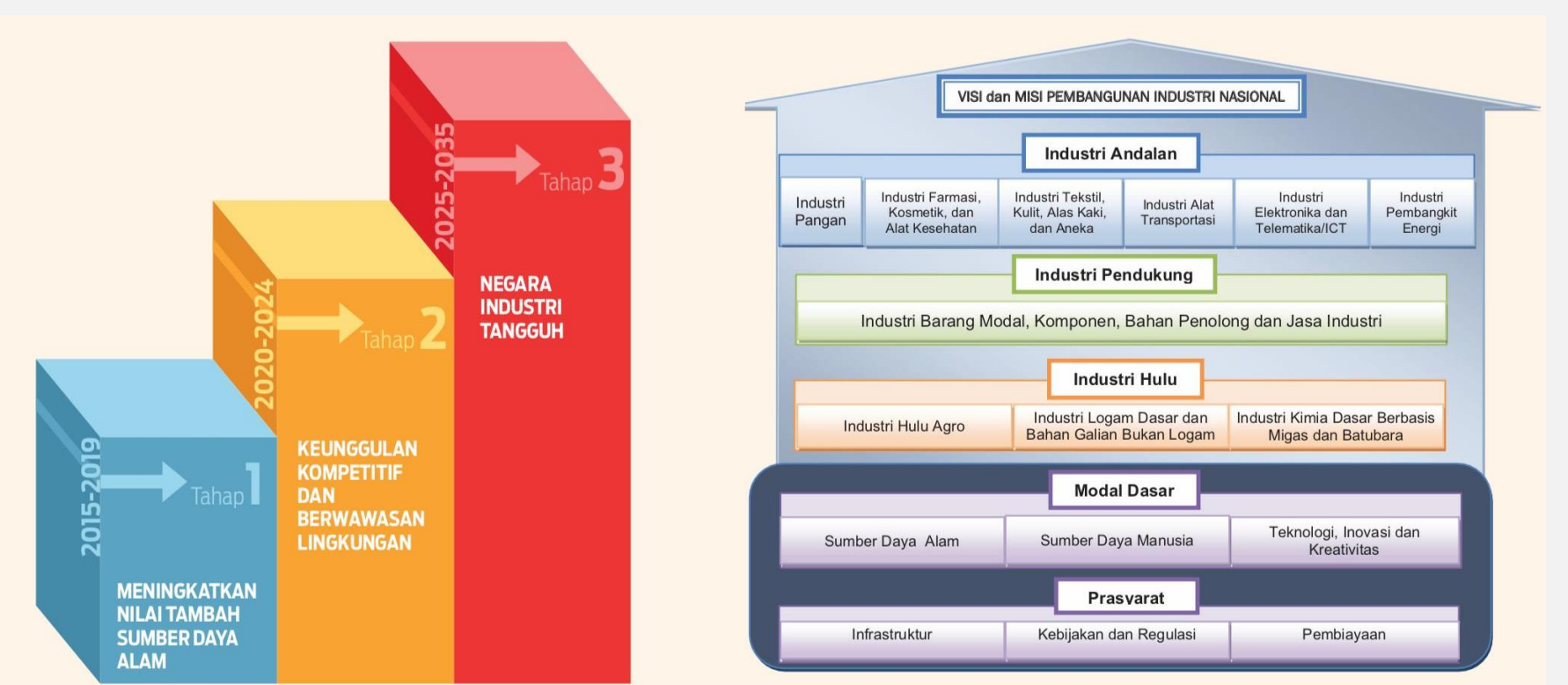


OVERVIEW



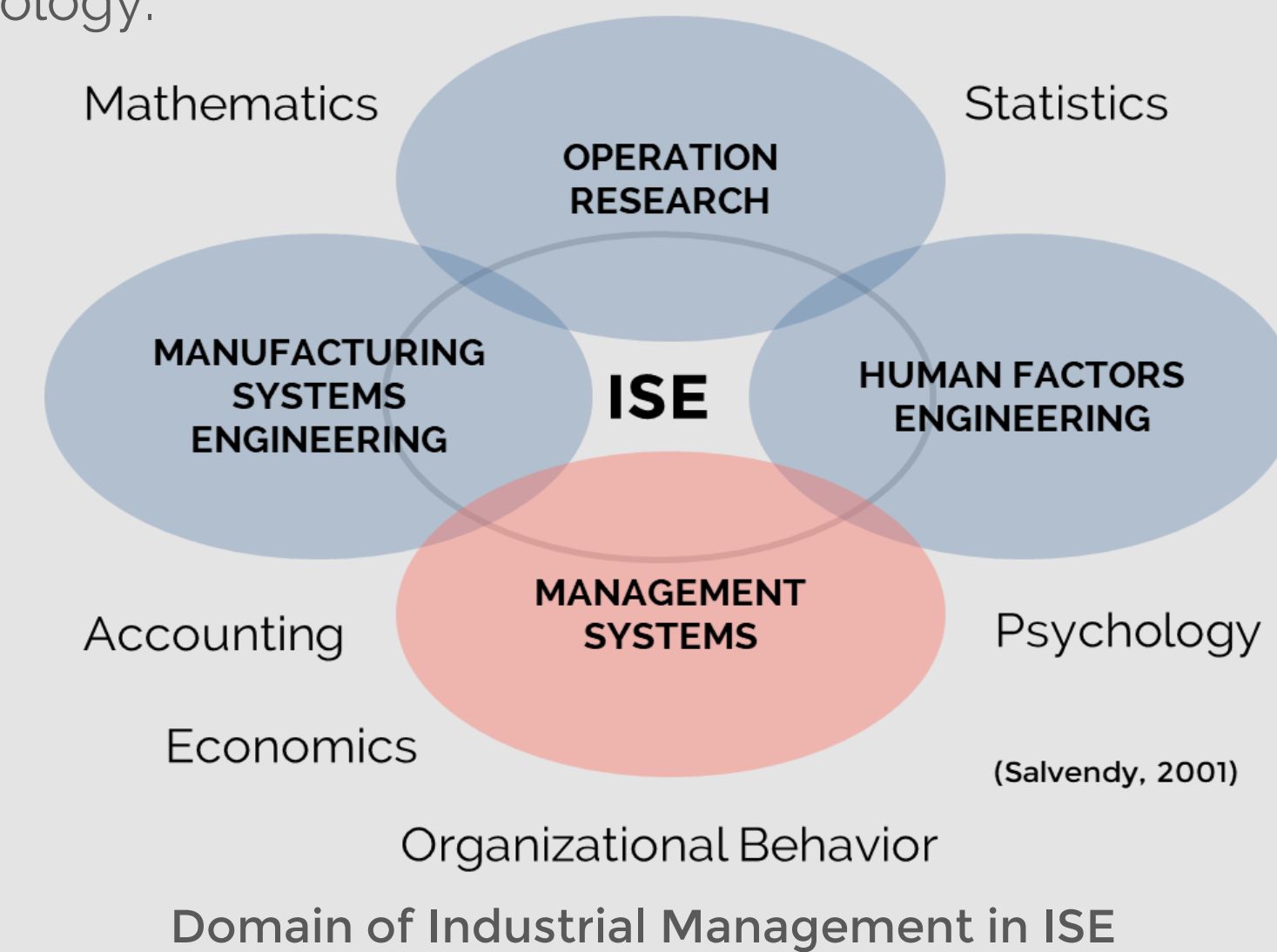
Evolution Stage of Industry 4.0

The rise of Industry 4.0 brings technological advancement that changes every aspect of the business landscape and the nature of global competition. Indonesia, which currently in the 45th ranking of Global Competitive Index (GCI), needs to innovate and adapt to be able to compete globally. Indonesian Government plans the National Industrial Development to tackle these issues. Indonesia currently is at the end of the first stage of the National Industrial Development. To prepare for the second stage, which focuses on the eco-friendly-competitive advantage, Indonesia needs to fulfill the requirements and resources to achieve the National Industry Development Industrial Management Research Group (RG) contributes by researching these aspects from the perspective of Industrial System Engineering (ISE).



National Industrial Development Stage

There are four domains in ISE. Out of this four domains, Industrial Management RG performs researches in the domain of management systems using basic knowledge and/or research application areas of mathematics, statistics, accounting, economics, organizational behavior, and psychology.

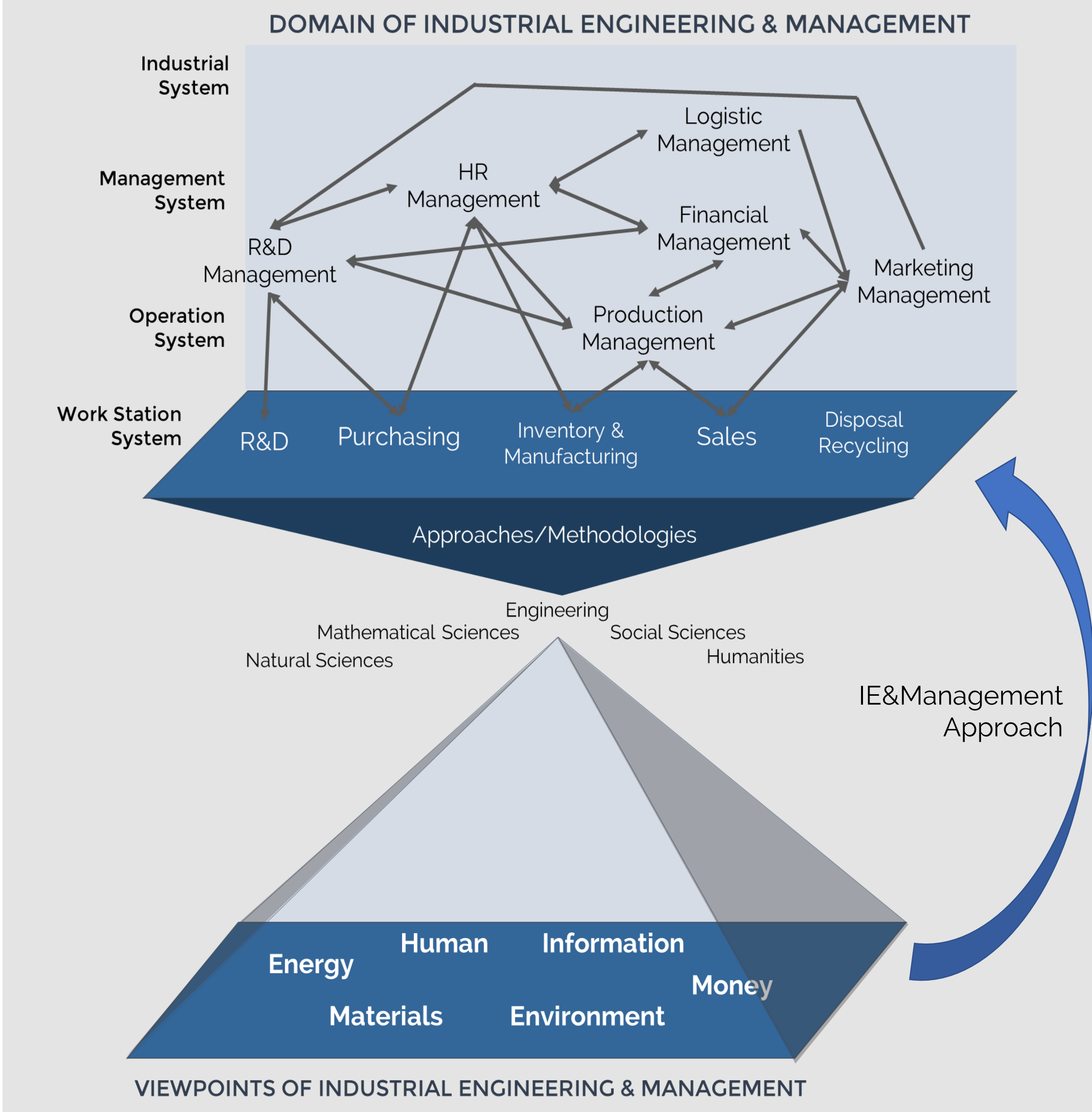


Domain of Industrial Management in ISE

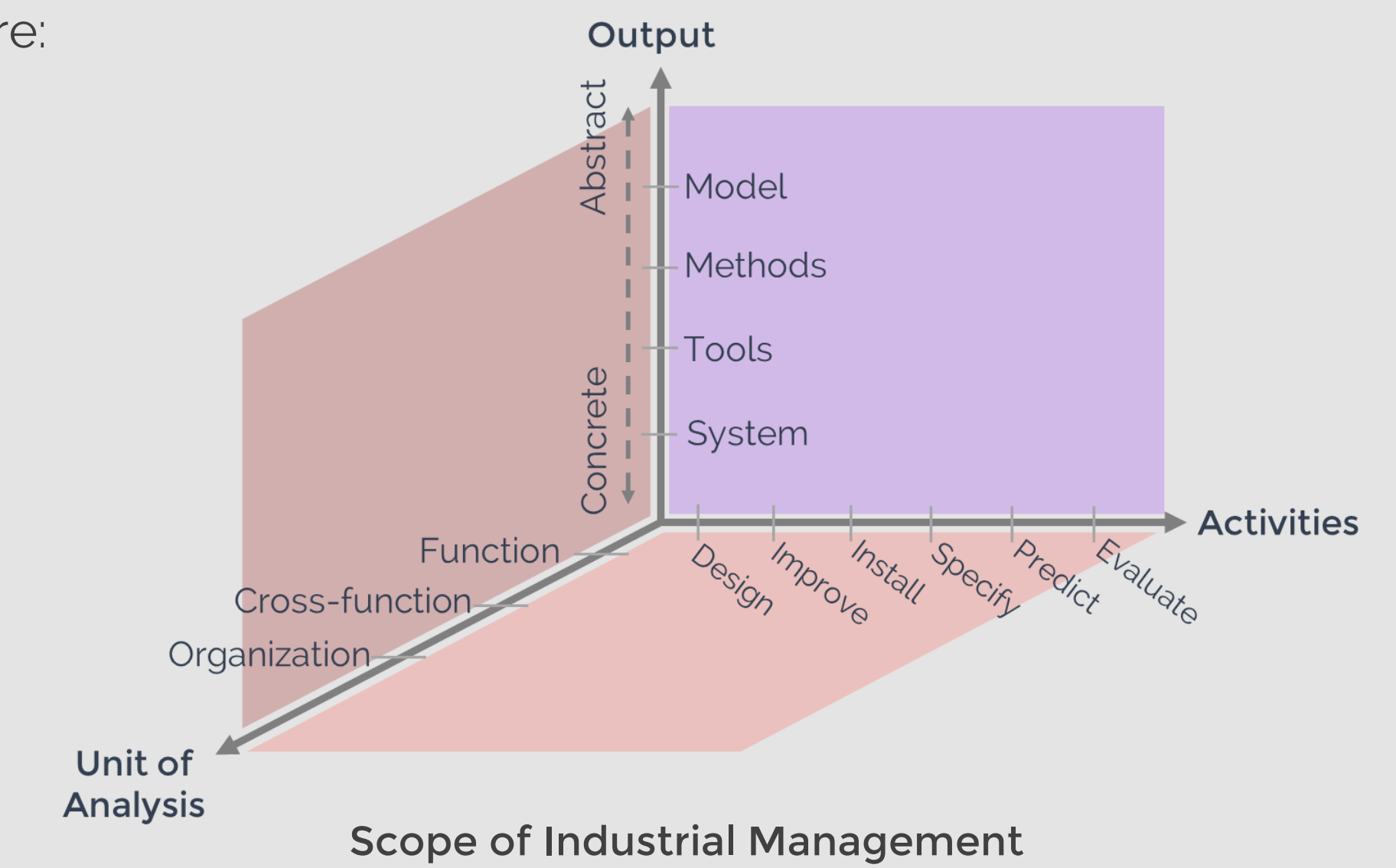
	No. Publication	No. Citation	Impact Factor
Chairman			
Prof. Dr. Ir. Iman Sudirman DEA. (IMS)	27	335	8
Members			
Dr. Indryati Soenaryo, MSc. (ISO)	10	71	4
Dr. Ir. Joko Siswanto, MPA. (JS)	16	82	4
Dr. Hasrini Sari, ST., MT. (HS)	7	87	5
Dr. Ir. Budhi Prihartono, DEA. (BP)	11	33	3
Dr. Made Andriani, ST., MT (MA)	5	15	3
Anggita Leviastuti, S.T., M.Sc. (AL)			
Aldila Rizkiana, S.T., M.T., CPMA (AR)	1	2	1
Fathiro Hutama R. P, M.Sc. (FHR)			
Aditya Parama, S.T. (AP)	4	6	1
Ilham Reza Prasetyo, S.T. (IRP)			
Adjunct			
Pamoedji Hardjomidjojo, MM. (PH)		47	1

Industrial Management involves the activity to design, develop, implement and improve industrial corporation system, which involves men, machine, material, information, energy and environment by using the knowledge and skill in mathematics, physics and social science together with applying the principles of design methods and engineering analysis to specify, predict, and evaluate results that have to be achieved by the corporate system.

The difference in the domain and perspective of Industrial Engineering and Industrial Management has been shown by the Tokyo Institute of Technology with a diagram presented as follows:



Scope of industrial Management RG can be explained using 3 axis of Business Process, Scope, and Focus as shown in the following figure:



VISION

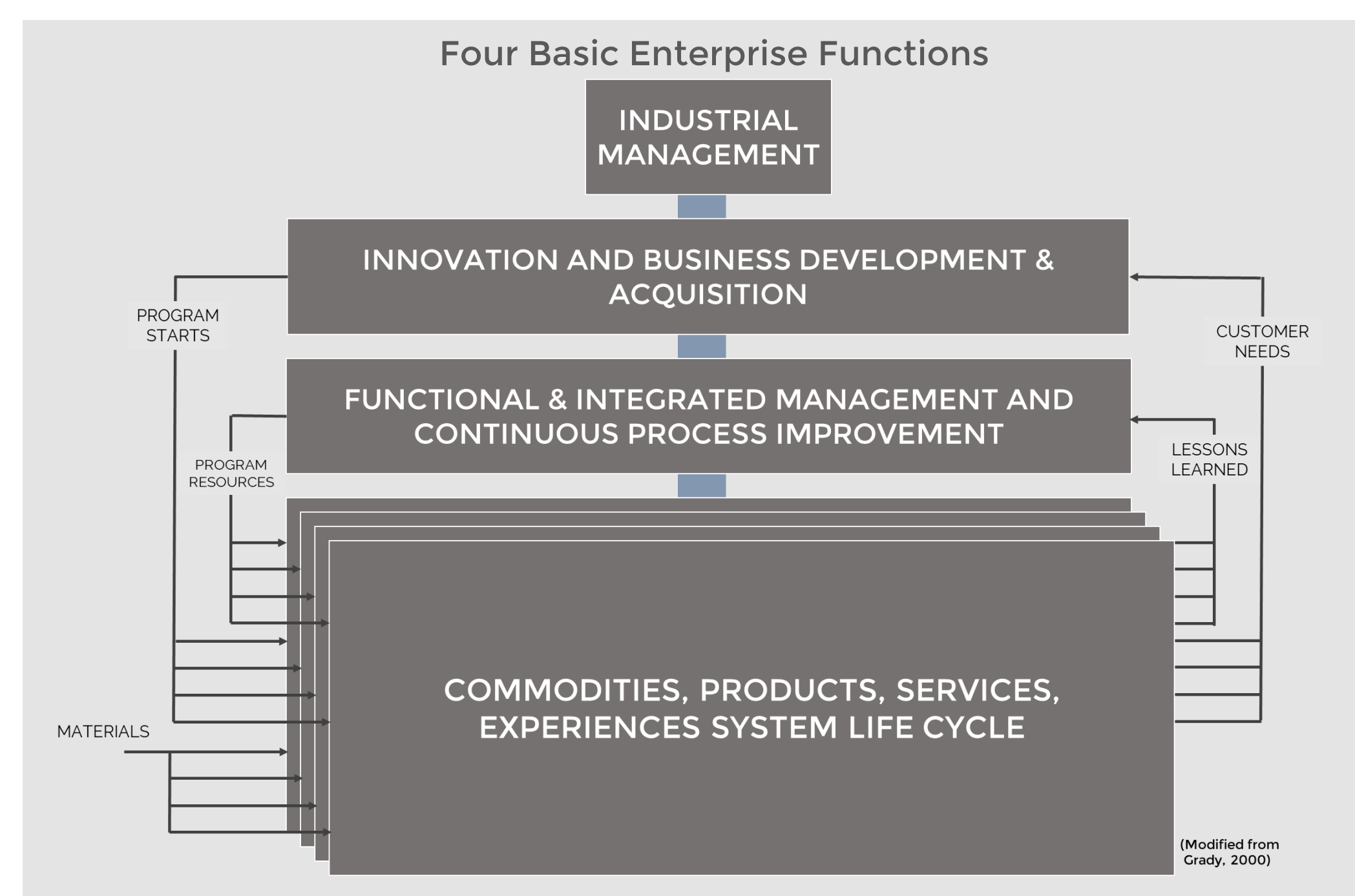
Industrial Management RG has a vision to be internationally acknowledged in the areas of system engineering and management through its contribution in universal values with local wisdom and as a group that has wide contextual knowledge, by which it is able to intellectually synthesize and interpret international knowledge within regional and national socio-cultural context.

MISSION

- As a research group: To formulate and develop the science of Industrial Management in the era of information using integrated systemic as well as functional approach.
- On education and research:
 - To establish integrated education for undergraduate and post-graduate with high reputation and quality
 - To synergize the research and education to build system design, publication and patent within the international scale.
- On community development:
 - To serve the community and industry using our competence and reputation to provide the most advantages
 - To implement the design and system resulted from our research and education for industrial development

RESEARCH ROADMAP

Research topics covered by Industrial Management RG in 2018-2023 Research Plan are developed according to the following framework:



System Integration Big Data and Analytics
Simulation and Virtualization
Internet of Things (IoT)
The Cloud
Cybersecurity
Autonomous Robots
Augmented Reality
Additive Manufacturing

The Research topics are focused on Innovation and Business Development & Acquisition, Functional & Integrated Management, and Continuous Process Improvement linked to System Integration and Big Data & Analytics components of Industry 4.0

Innovation and Business Development & Acquisition

Topic	Coord.	Year
Behavioral Decision Making in Leisure Industry	ISO	2020-2023
Entrepreneurship & Franchise System Development	JS	2018-2023
Higher Value Chain Business Development	JS	2018-2021
Service System Design	BP	2019-2023
Green product strategies	HS	2019-2021
Marketing in sharing economy era	HS	2019-2022
Marketing strategies in high tech environment	HS	2020-2023
Marketing for e-commerce	HS	2019-2021
Behavioral Economics Application in Capital Market	IRP	2018-2020
Economics and consumer psychology	IRP	2020-2023
Behavioral Science and Consumer Decision Making	IRP	2021-2023
Firm's Valuation and software development	PH	2020-2023
Portfolio Analysis and Software Development	PH	2018-2023
Investor Behavior & Market Timing	AL	2019-2020
Sustainable investing Strategy	AL	2019-2021
Market Integration & Contagion Effects	AL	2018-2020
Financial Market Predictability	AL	2020-2022
Optimal Asset Allocation Strategy for University Endowment	AL	2021-2023
Innovation and New Business Development	FHP	2018-2023
Product Development	AP	2018-2023

Functional & Integrated Management

Topic	Coord.	Year
Information System Integration	IMS	2019-2020
Information System Usability	IMS	2019-2020
Information System and Decision Process	IMS	2020-2021
Destination Choice Decision Making Model	ISO	2018
Destination Choice Decision Making Process	ISO	2019-2020
Smart HRM System for Industry 4.0	JS	2018-2023
HR Competencies for Industry 4.0	JS	2018-2021
Digital marketing for SMEs	HS	2018-2021
Social media marketing	HS	2018-2020
Personalized marketing	HS	2019-2023
Experiential marketing	HS	2018-2023
Costing Methods and software development	PH	2018-2021
Financial Analysis and software development	PH	2018-2021

References

- Salvendy, G. 2001. *Handbook of Industrial Engineering, Technology, and Operation Management*, 3rd Ed. Hoboken, NJ, USA: John Wiley & Sons, Inc.
Grady, J. 2000. *System Engineering Deployment*. Boca Raton, FL: CRC Press.

Continuous Improvement

Topic	Coord.	Year
Knowledge Management	IMS	2019-2020
Organizational Knowledge Management	MA	2023
Organization Diagnosis	MA	2018-2021
Change Management	MA	2020-2023
Cultural Aspect of Information System	IMS	2020-2021
Change Process on Information System Implementation	IMS	2020-2021
Assessment Model Development of Business Process and Organization Maturity	BP	2019-2020
Assessment of Business Process and Organization Maturity Level	BP	2019-2023
(Big) Data Analytics: Web Mining	AR	2018-2020
Text Analytic: Question-Answering	AR	2019-2021
Systems and Information Extraction	AR	2019-2021
Web Analytic: Social Media Analytics	AR	2018-2023
Network Analytic: Social influence and information diffusion models	AR	2020-2022
Mobile Analytic: Gamification	AR	2023
E-Servqual	ISO	2019-2020