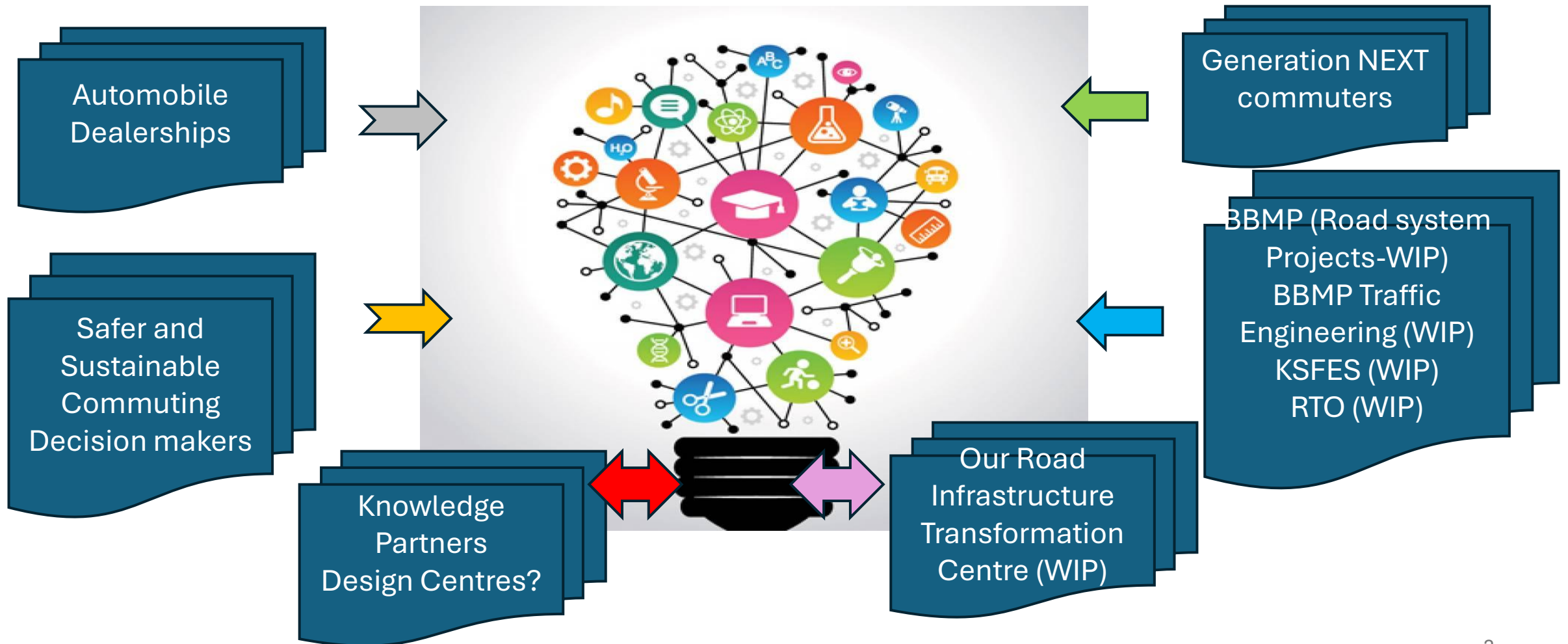


NSSR RS PROGRAMME 2025 – MORE DETAILS IN OUR SYNOPSIS & NSSR HANDBOOKS EDITIONED FOR 4W(S), 2W(S), CV(S) and EI(s)



NSSR Themes – Quality Promotion driving CRM

- **Target group: The NSSR Themes Quality Promotion insight is targeted towards a new concept National Safety Social Responsibility vertical** to drive (a) predictive, (b) open-survey & (c) feedback... learning & analytics related quality promotion in or for enveloping ecosystems.
- The interested parties or stakeholders of these enveloping ecosystems being the National Safety Council (NSC), BBMP Roads Infrastructure-Projects, BBMP Traffic Engineering, BESCOM, BWSSB, Healthcare Providers, Medical Supplies Providers, Civic Amenity Providers, Banking institutions, Educational institutions, Corporate commuters, automobile dealers and manufacturers, KSFES (Karnataka State Fire and Emergency Services) etc

QP enabling
CRM

Building Safety.

Road Safety

**Safe and
Sustainable
Commuting**

BBMP: Bruhat Bengaluru Mahanagara Palike
BESCOM: Bengaluru Electricity Supply Company Ltd
BWSSB: Bengaluru Water Supply and Sewerage Board

Empirical Study Report

As a project at AOEC, with the respectful stake-holding and approval by the National Safety Council – Bengaluru Chapter, we intend to improve road safety via our handbooks that help “sensitization, readiness and related feedback”. We are developing an Analytics Development Programme for the inter-related need for road-safety by mission critical domain to strategize further.

We extend our special gratitude to the Dean and Faculty of DCAL, Bengaluru – for helping us via the recent Faculty Development Programme, 2025.

We wish to acknowledge that the valuable guidance from all decision makers met during the pilots helped revert back on issues affecting the road safety today.

I thank all other people directly and indirectly connected to the pilots for this participation and interaction.

GAP ANALYST NAME: VENKATRAM K S

Our vision and scope of work

Use BI/AI/ML practices to study and innovate on solutions for Road Safety

Use our BE, MCAD, MCSD, MCP, BTECH and PGDM, AUTOSAR, LEAN SIX SIGMA, ADP qualifications to improve active and passive safety systems in vehicles

Use our understanding from different safer commuting studies, reviews and development programmes to design more effectiveness in our solutions

Pilots

- ☐ Dealerships for Tata Motors, Maruti and Honda
- ☐ Departments of education
- ☐ Educational institutions needing students to commute
- ☐ Departments for Road Safety
- ☐ Stakeholders and Design foundations for Road Safety

Use analytics in Road Safety Programmes for the degradation due to climate change or targeted need in 2025-2026 and later

Empirical Study Report

Vision:

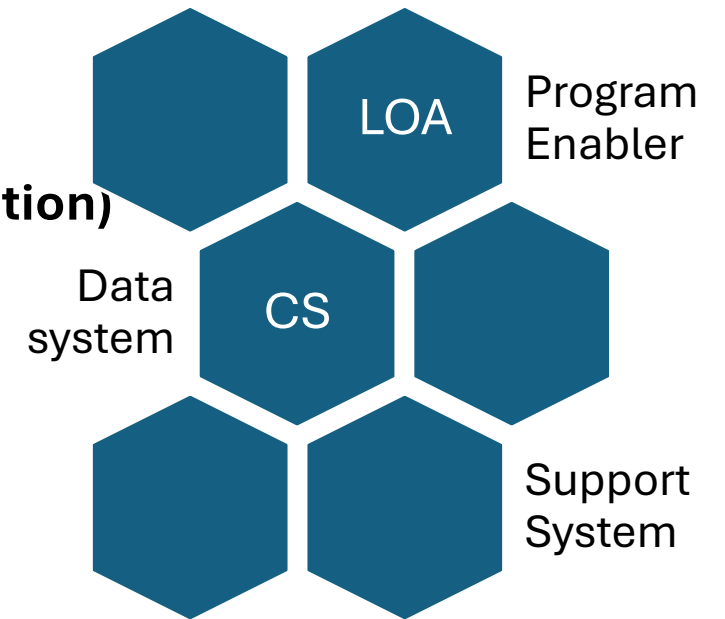
Develop a Road
Safety Programme

**Editioning the
programme to
Deliver analytics,
reports and case
studies**

FUTURE CONNECTED ANALYTICS

APPENDIX A

Deep Interaction for (Road Infrastructure Transformation)



Road Infrastructure Transformation Programme for the climate change or targeted need in 2025- 2026 and later

NSSR/GII OBJECTIVES

The Project focuses on Time Motion Scale (TMS) Studies and Road Infrastructure Transformation Programmes

Via

- (1) Practices for Ease of Access to traffic**
- (2) Practices for Ease of Providing traffic control services**
- (3) Strategic analytics for improved Road Systems with Traffic Police Stations on them**
- (4) Strategic analytics for improved Traffic Control Police Safety**

Road Infrastructure Transformation Programme for the climate change or targeted need in 2025- 2026 and later

NSSR/GII OBJECTIVES OF THE STUDY

We at AOEC, find that Traffic Control-programme-outcome issues have been attributed to

- ☐ Growing need for more Traffic Control-programme resources
- ☐ Lack of Proactive emphasis for the dynamics seen by the Traffic Control Programme-enabling departments for the following:
- ☐ Government driven appreciation of environmental system dynamics and/or safer traffic control & commuting
- ☐ Project Management of the environmental conditions for Traffic Control
- ☐ Nature of ownership for degradation of environmental conditions and climate change

Road Infrastructure Transformation (RIT)

Programme for the climate change or targeted need in 2025-2026 and later

NSSR/GII OBJECTIVES OF THE STUDY

- ☐ Transformative investments in RIT organization structure and human resources
- ☐ NEXT steps for sustainable improvisations in traffic control
- ☐ NEXT Steps Reflection about the millennium goals for health and wellness of the Traffic Control workforce
- ☐ Nature of ownership for millennium goals for the health and wellness of the traffic control workforce

Road Infrastructure Transformation Programme for the climate change or targeted need in 2025- 2026 and later

NSSR/GII OBJECTIVES OF THE STUDY

The Time Motion Studies are divided into 3 categories, that is

- TMS Studies for Ease of Access to traffic
- TMS Studies for Ease of Providing traffic control services
- Sustainable and innovative focus for road infrastructure milestones such as
 - ❑ Constructing new road systems
 - ❑ Improving existing road systems
 - ❑ Reducing road accidents
 - ❑ Value addition and transformation programmes for the Government's vision

Road Infrastructure Transformation Programme for the climate change or targeted need in 2025- 2026 and later

NSSR/GII OBJECTIVES OF THE STUDY

Value addition and transformation programmes for the Government's vision, highlights of which are as follows

- ☐ Addressing infrastructure needs
- ☐ On-road waste / climate change impacting resource assessment, planning and management (where this is termed as impact on the economy,, ecology and environment)
- ☐ Safe and smarter commuting
- ☐ Commissioning of strategic road infrastructure and road systems as indicated in the next page

Road Infrastructure Transformation Programme for the climate change or targeted need in 2025- 2026 and later

NSSR/GII OBJECTIVES OF THE STUDY

Commissioning of strategic road infrastructure and road systems such as

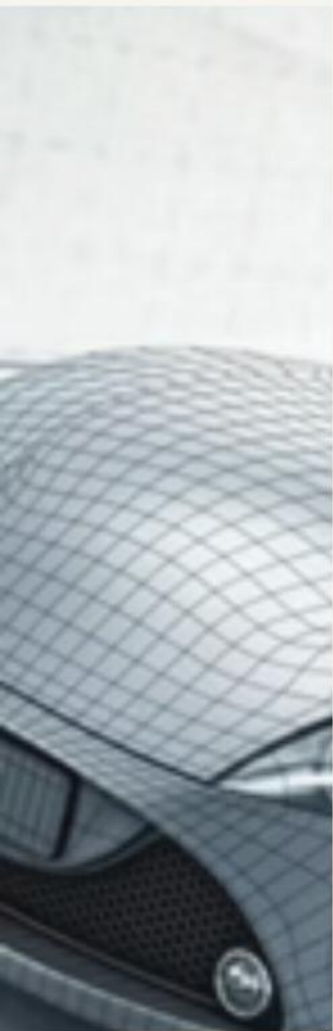
- ☐ Express ways, NICE roads
- ☐ Border roads
- ☐ Flyovers
- ☐ Bridges
- ☐ Underpasses
- ☐ Link roads, road corridors
- ☐ Ring roads

Road Infrastructure Transformation Programme for the climate change or targeted need in 2025- 2026 and later

NSSR/GII OBJECTIVES OF THE STUDY

Commissioning of strategic road infrastructure and road systems such as

- ☐ Futuristic Cable cars
- ☐ Futuristic Rope ways
- ☐ Current road amenities such as EV charging stations and Flexi-fuel pumps
- ☐ Futuristic road amenities such as Heli-ports, Drone-ports
- ☐ WIP road amenities such as Service Centre USHD(s) with UAV or Drone-ports for **Augmented RADIUS of coverage of the management index/the catalog synergy of connected road systems**
- ☐ USHD: Universal (RIT-CS) Showcase Help Desks with UAV or Drone ports to incorporate road system imagery into the safe and smart commuting reasoning of the vehicle owner or driver



Empowering Road Safety as a National Social Responsibility

Welcome to
ROADSAFETY-COE, a
dedicated space where
we work towards
fostering an intelligent
relationship between
road safety practices and
our expectations to drive
on road systems known



NSSR Theme Quality Promotion COE – CRM Framework for Road Safety

- NSSR-THEME Projects*
- ☐ Driver Fitness
 - ☐ Vehicle Fitness
 - ☐ Road systems/ Infrastructure improvement
 - ☐ Alpha Assistance

NSSR RS PROGRAMME 2025 –PILOT RESPONSE IS WORK IN PROGRESS

Stakeholder/ Associated organizations	Viability to incorporate NSSR RS programme	Responsiveness possible for NSSR RS programme	Ensuing investment for Analytics Development
BBMP RI PROJECTS			
BBMP TRAFFIC ENGG			
BESCOM			
BWSSB			
KSFES			
CIVIC AMENITY PROVIDERS			
HEALTHCARE SERVICE PROVIDERS			
MEDICAL SUPPLIES PROVIDERS			

NSSR RS PROGRAMME 2025 – PILOT RESPONSE IS WORK IN PROGRESS

Stakeholder/ Associated organizations	Viability to incorporate NSSR RS programme	Responsiveness possible for NSSR RS programme	Ensuing investment for Analytics Development
BANKING INSTITUTIONS			
EDUCATIONAL INSTITUTIONS			
CORPORATE COMMUTERS			
AUTOMOBILE DEALERS			
AUTOMOBILE MANUFACTURERS			
AUTOMOBILE FLEET OWNERS/JUST OWNERS			

ANALYTICS DEVELOPMENT PROGRAMME 2025

– APPENDIX C

Data
Analytics

Data Science

Step 1 - Understand
Business Problem
(TOSCAR)

Step 2 - Frame the
problem statement

Step 3 - Break into
smaller problems

Step 4 - Convert smaller
problems to data
problems

Case study Development Template



IDENTIFY THE CHALLENGE



CARRY OUT THE DATA EVALUATION



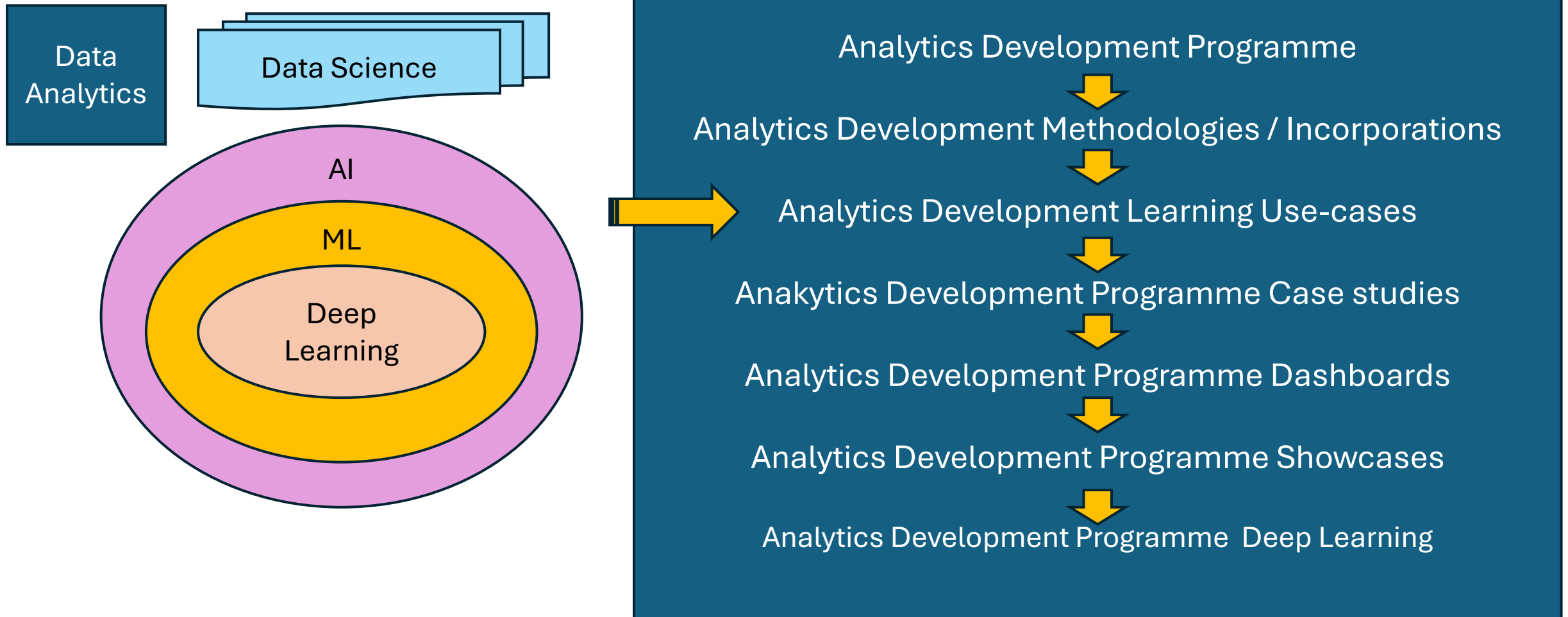
DESIGN AND IMPLEMENT THE ANALYTICS



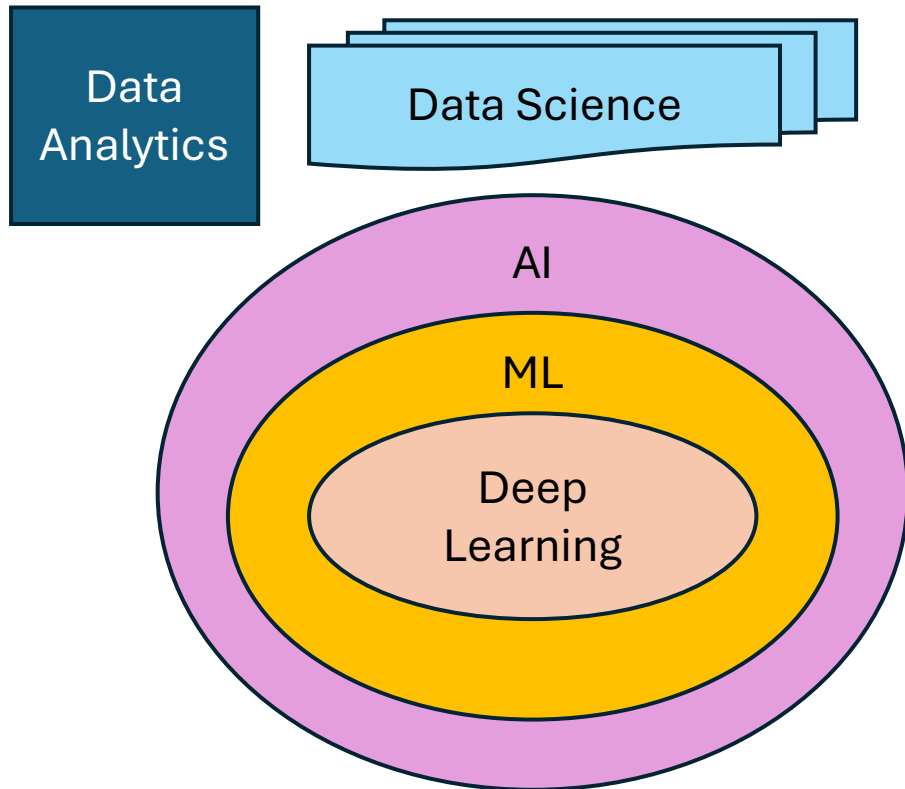
REVIEW AND REPORT THE FINDINGS

ANALYTICS DEVELOPMENT PROGRAMME 2025

– SCHEDULE OF INTERACTIONS



ANALYTICS DEVELOPMENT PROGRAMME 2025 – HIGHLIGHTS

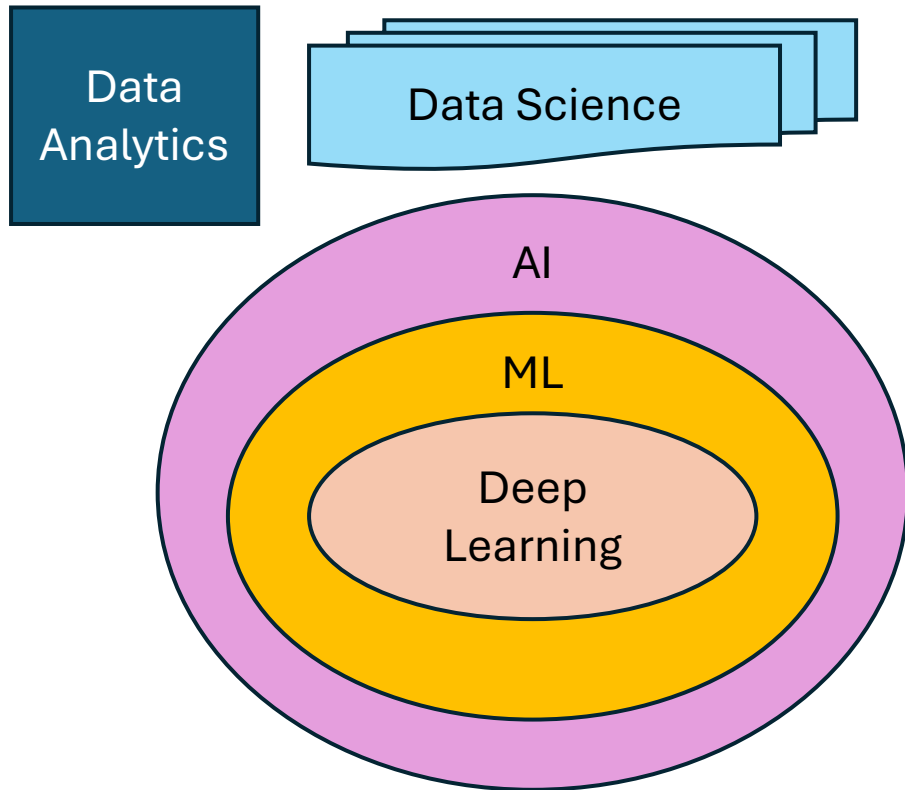


Data Analytics combines the power of (a) data science, (b) statistical analysis, (c) More advanced computing (for example machine learning) to extract valuable insights from the data, understand trends, make informed decisions and optimize the use of resources and effort in operations

Among the 2 fields of statistical analysis, that is descriptive and inferential statistics, descriptive statistics deals with Exploratory Data Analysis to evince, and dig out insights to create interactive visuals and dashboards.

ANALYTICS DEVELOPMENT PROGRAMME 2025

– HIGHLIGHTS



Data Science Lifecycle

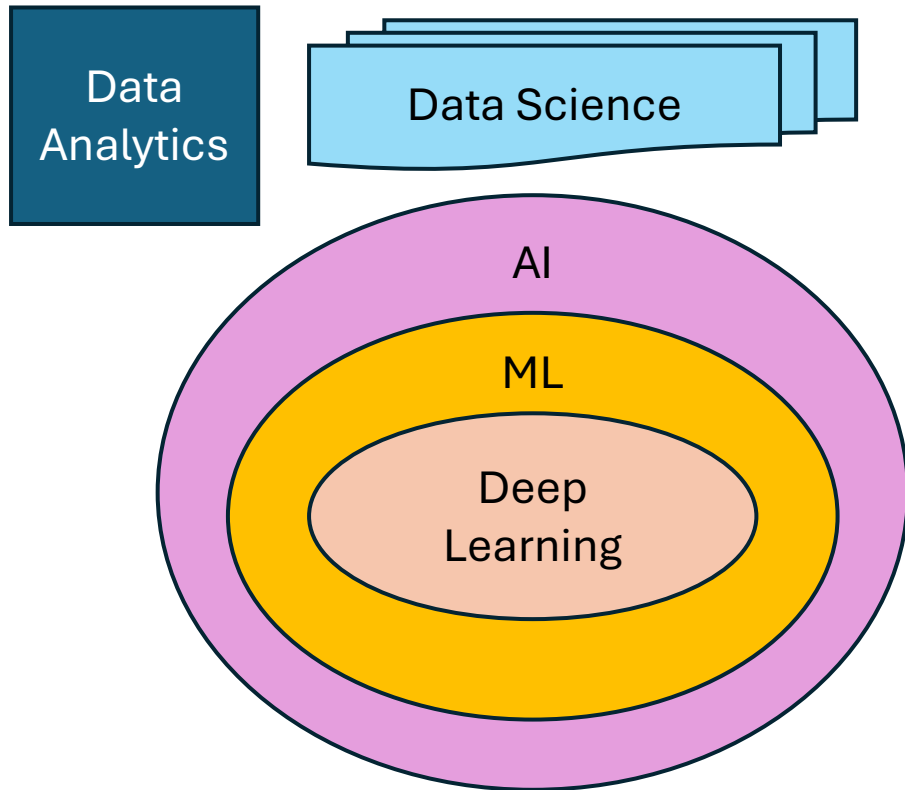
- ☐ Collect data
- ☐ Clean data
- ☐ Transform data
- ☐ Derive insights
- ☐ Develop visualizations

Cleaning data or handling inherent issues involves

- ☐ Handling Duplicates
- ☐ Handling Outliers
- ☐ Handling Missing Values

ANALYTICS DEVELOPMENT PROGRAMME 2025

– HIGHLIGHTS

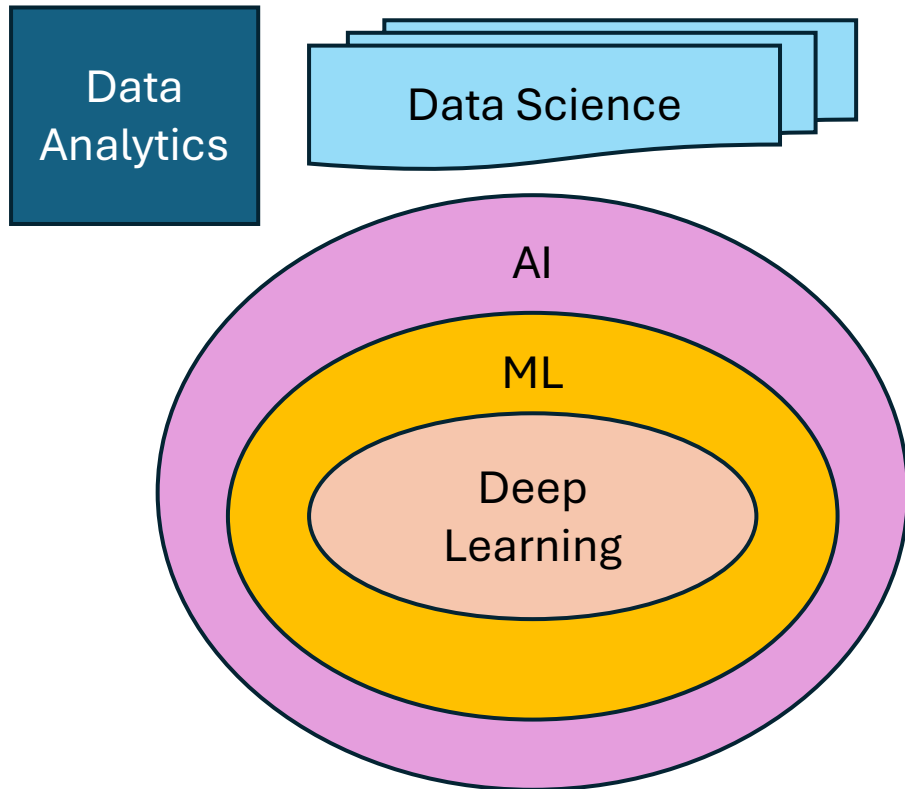


AI or Artificial Intelligence refers to the ability of computers to think and decide like humans, to improve use cases like planning, learning, reasoning, perception and decision making confidence

ML or Machine Learning uses methods of learning like supervised or unsupervised learning to help gain deeper insights to convert business problems, or customer satisfaction problems to data analytics or business analytics problems that improve business modelling, operations and training to help ROI, TCO, and Service Level Agreements

ANALYTICS DEVELOPMENT PROGRAMME 2025

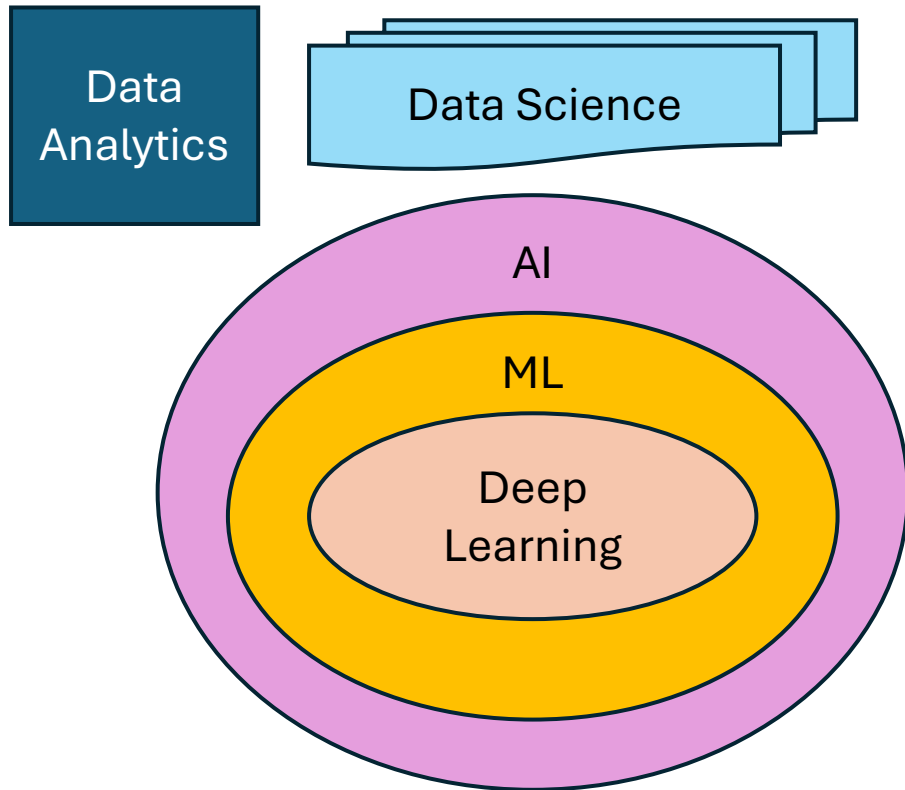
– HIGHLIGHTS



Stages of a solution using data science and analytics:

- ☐ Data identification and including of a data science lifecycle
- ☐ (Data science/analytics delayering / insight- generation)
- ☐ Model selection
- ☐ Model evaluation
- ☐ Model optimization
- ☐ Model fine tuning
- ☐ Model orchestration
- ☐ Model observability
- ☐ Model surveillance, consistency, learning and automation considering the issue of data drift and/or concept drift or more impactfully the model drift

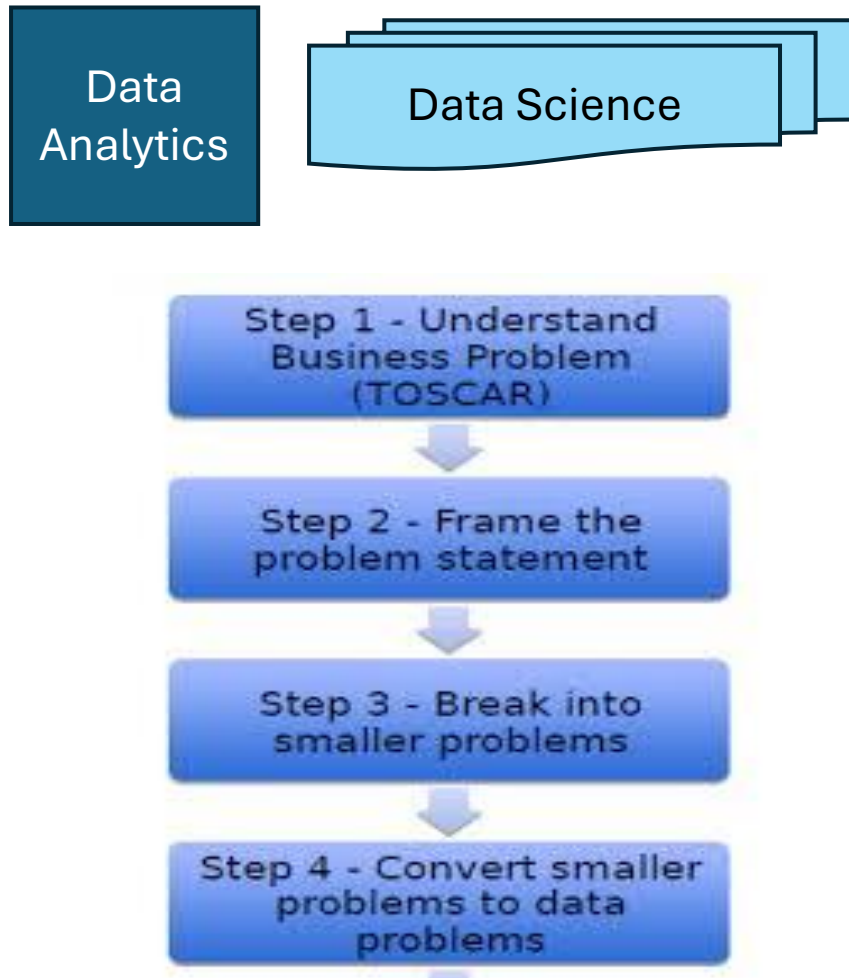
ACTIVITY DEVELOPMENT PROGRAMME 2025 – HIGHLIGHTS



Important Stages of a project using data science and analytics:

- ☐ Feature Extraction
- ☐ Feature Engineering
- ☐ Feature Selection
- ☐ Expectations for performance or confidence for model
- ☐ Model selection
- ☐ Model deployment
- ☐ Model observability

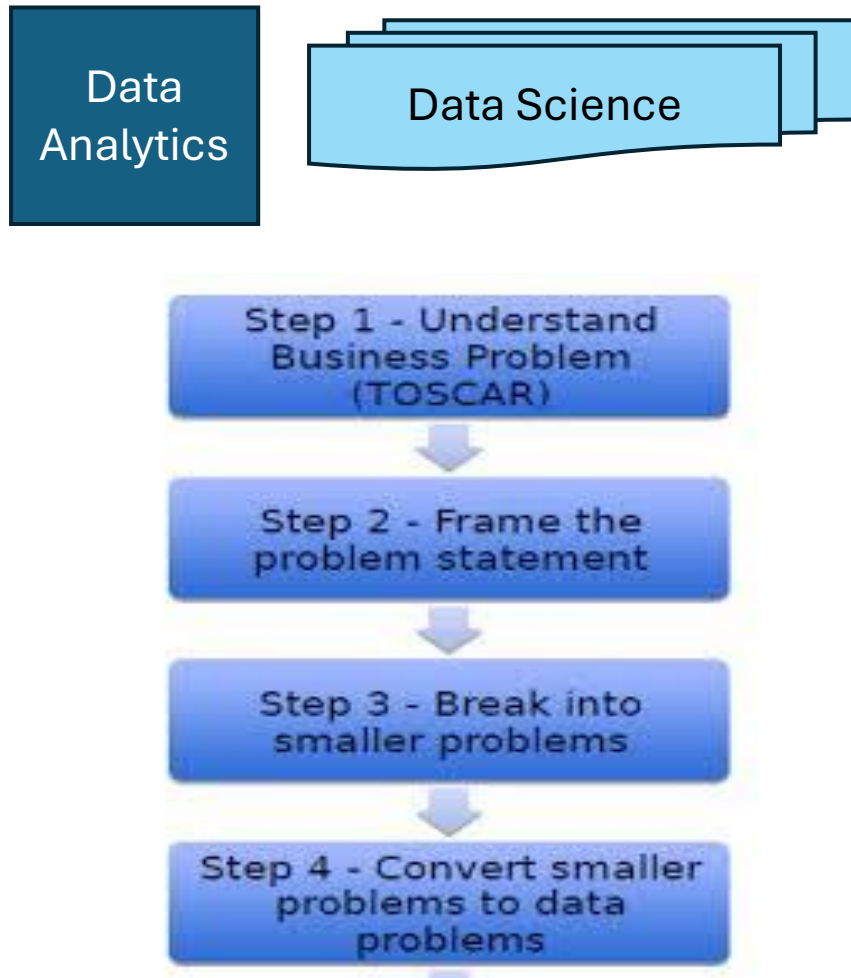
ACTIVITY DEVELOPMENT PROGRAMME 2025 – METHODOLOGIES



Key Steps for converting a business or customer problem to an analytics problem

- ☐ Define vision and objectives for problem
- ☐ Perceive environment and clarify scope
- ☐ Set Measurable objectives to solve or take actions for the problem
- ☐ Choose different analytics like descriptive, interpretable or diagnostic, predictive, and prescriptive diagnostics
- ☐ Collect and prepare data
- ☐ Analyze and visualize data
- ☐ Develop and implement solutions to enhance business performance, improve operations, efficiency and productivity, improve assessment and preparedness for risk management, evolve/innovate/transform model/processes for new requirements and opportunities

ACTIVITY DEVELOPMENT PROGRAMME 2025 – INCORPORATIONS



Important Stages for converting a business or customer problem to an analytics problem via principles of

- ❑ Data science / Data Analytics
- ❑ Machine Learning
- ❑ Generative AI (a subfield of AI that creates new content from a set of inputs, data sets using Deep Learning and Neural Networks)
- ❑ The content of outputs from Generative AI include videos. Images, mediating audio
- ❑ Agentic AI that enhances transformation potential via multimodel capabilities
- ❑ Use of Large Language Models to improve TCO, ROI, SLA(s), SLO(s)
- ❑ Relevant personalization and innovation for areas of Vehicle System/Feature Engineering, CRM, HRA, SCM, Strategic decision-making

ANALYTICS DEVELOPMENT PROGRAMME 2025

– SUBJECTIVE INVOLVEMENT

Data
Analytics

Data Science

Step 1 - Understand
Business Problem
(TOSCAR)

Step 2 - Frame the
problem statement

Step 3 - Break into
smaller problems

Step 4 - Convert smaller
problems to data
problems

Use Cases for Dealerships

Connecting need with suitability

*Responsive Quality for road system types,
traffic and need based journeys*

*Understanding Problem susceptibility and
course of action*

Designing Safer active and passive systems

About AOEC and Future Connected Analytics

We are
digging
deeper in
2025



APPENDIX D

About the team

Name: Venkatram K S

Qualifications:

BE Computer Engineering, 1991

MCP, MCAD, MCSD, 2002-2005

Role: Gap Analyst and Design For Performance Engineer

Project in progress: Road Safety Programme

Nature of project: Sensitization, Preparedness and Sustainable interest for Road Safety via Driver Fitness, Vehicle Fitness, Road System understanding and Alpha Assistance

Period of interaction for AI/BI/CQI in Road Safety solutions:

2021-2025

About the team

Name: Aakkash K V

Qualifications:

BTECH Automotive Engineering, 2017-2021

PGDM Operations and Analytics, 2021-2023

Role: Freelancer - Associate Analyst and Automotive Engineer

Project in progress: Road Safety Programme

Nature of project: Sensitization, Preparedness and Sustainable interest for Road Safety via Driver Fitness, Vehicle Fitness, Road System understanding and Alpha Assistance

Period of interaction for AI/BI/CQI in Road Safety solutions:

2023-2025

NSSR ROAD SAFETY AND ITS ANALYTICS DEVELOPMENT PROGRAMME 2025 – CONTACT US



You can ask for more details by calling the gap analyst and consultant on +91 9342867666 or by emailing us at venkataoec@gmail.com and aakkashkvautoengg@gmail.com

