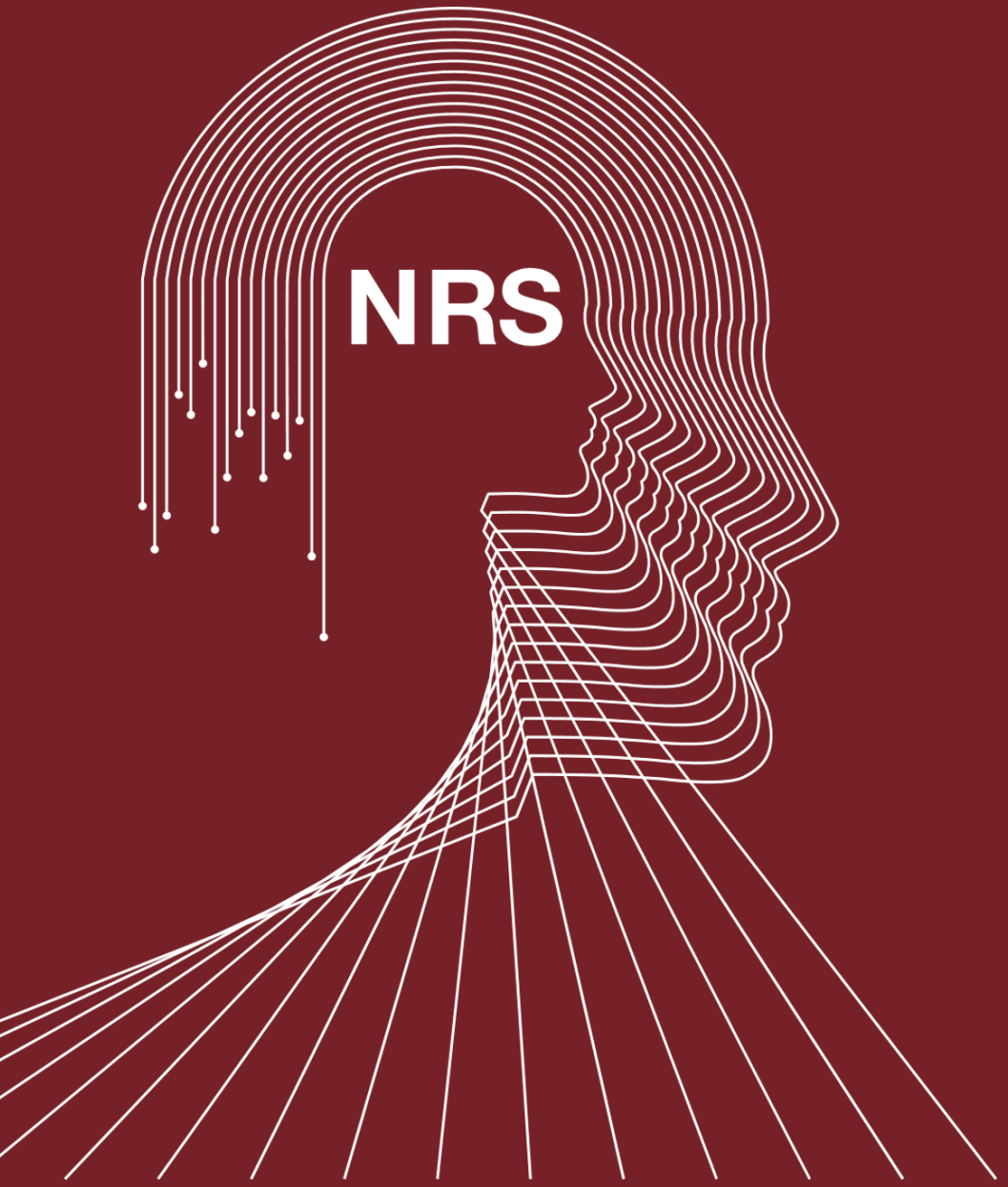
19/02/2021



NEW ROLE SCHOOLS

DATA SCIENTIST

Edition 4 & 5 | Project Work Launch

YOUR WAY TO THE FUTURE

GENERALI | We LEARN

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Agenda

TOPIC	SPEAKER
Welcome – Agenda	 **Chiara Bolognesi** Generali – Group Academy Program Director
The School Journey – Where We Are	
Project Work – Objective, The Use Case, Deliverables and Timeline	 **Carlo Vercellis** MIP Politecnico di Milano – Full Professor of Machine Learning
Project Work – The Operating Model	 **Chiara Bolognesi** Generali – Group Academy Program Director
Project Work Presentations & Award Ceremony	
Final Remarks	
Q&A	

The School Journey – Where We Are

INFRA MODULE LEARNING

INFRA MODULE LEARNING

SCHOOL ONBOARDING

An informative session led by Group Academy and the School Partner to introduce and contextualize the Course

ONLINE

DURATION
APPOX. 2HOURS

PRE-SCHOOL ASSESSMENT

Initial check point to personalize the suggested preschool materials

ONLINE

DURATION
APPOX. 2HOURS

PRE-SCHOOL COURSES

Personalized individual distance learning to warm up for the school start

ONLINE

DURATION DEPENDS ON INDIVIDUAL STARTING LEVEL

FOUNDATION MODULES

Training modules to pick up on foundational knowledge and practice and to build a common language

ONLINE

DURATION
4 DAYS X 2 TIMES

MASTER MODULES

Training modules to develop advanced knowledge and establish a shared set of best practices

ONLINE

DURATION
4 DAYS X 2 TIMES

PROJECT WORK

Project development, Presentation and Award Ceremony

ONLINE

DURATION
2 MONTHS

LEARNING METHODS

LECTURE

TESTIMONY

VIDEO LESSON

READING

GROUP WORK

QUIZ

TUTORING

ASSIGNMENT

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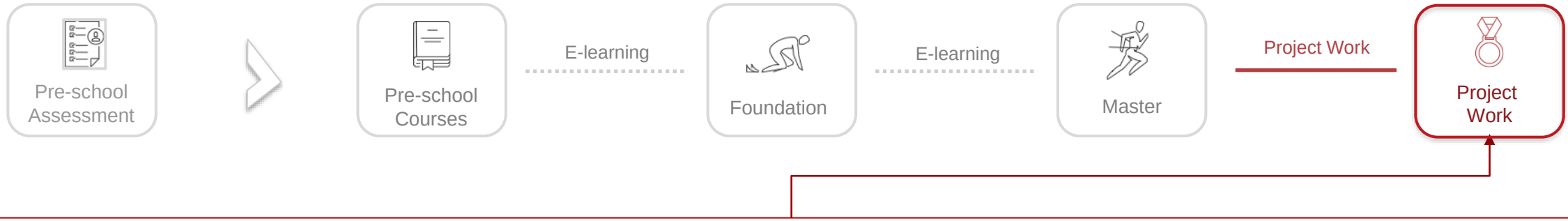
Project Work – Objective

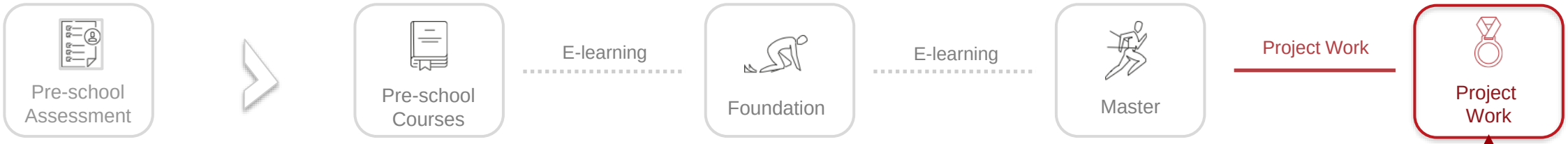


Objective:

Put in practice **skills** and **techniques** developed in the course and apply them to **a real-life use-case**

- Participants working in small groups will be provided with **a use-case** including:
  - Background information about a business challenge
  - A relevant set of data for modelling
- Teams will be requested to **design** and **execute** the best **solution** to the case
- The process will be supported **online** by a **tutor**
- All solution will be finalized and presented in a final **project presentation session**

Project Work – The Use Case



The Use Case:

CUSTOMER RETENTION PREDICTION ON A TRAVEL AGENCY
« The return at the Yeti »

Internal Data:

CRM:	**SALES:**	**FINANCE:**
customers information	service and customers information	payment information

External Data:

Textual data information (**tweets**) of customers.

Complete datasets will soon be available on School Platform (Project Work Section)

CRM – Dataset

Data field	Description
ID	ID CRM department.
Poverty_Code	Poverty code for the school area based on estimated percentage below the poverty line. A is 0 to 5.9, B is 6 to 15.9, C is 16 to 30.9, D is 31 or more, E is unclassified, Space if DISTCLASS = U (Supervisory Union).
Region	State areas.
CRM_Segment	CRM code system (internal code)
School_Type	Public or private.
Parent_Meeting_Flag	Indication whether a parent meeting was held.
MDR_Low_Grade	Lowest grade (not just participants) in the school.
MDR_High_Grade	Highest grade (not just participants) in the school.
Total_School_Enrollment	School enrollments.
Income_Level	Parent income level code. A is lowest, Q is highest, Z is unclassified.
SPR_New_Existing	New client indicator.
NumberOfMeetingswithParents	Number of meetings with parents prior to the trip.
FirstMeeting	The date of the first meeting with parents (NA if none held).
LastMeeting	Date of the last meeting with parents (NA if none held).
DifferenceTraveltoFirstMeeting	Days from the first parent meeting to travel date.
DifferenceTraveltoLastMeeting	Days from the last parent meeting to travel date.
SchoolGradeTypeLow	The lowest grade type in the school.
SchoolGradeTypeHigh	The highest grade type in the school.
SchoolGradeType	Combination of the above denoting the type of school.
SchoolSizeIndicator	Size of the school (S, M, L, S-M, M-L).

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SALES – Dataset

Data field	Description
ID	ID sales department.
Program_Code	Program code of the trip.
From_Grade	Lowest grade in school of a participant.
To_Grade	Highest grade in school of a participant.
Group_State	School location.
Days	Number of days on the program.
Travel_Type	Travel mode (A = Air, B = Bus, T = Train).
Departure_Date	Departure day.
Return_Date	Return day.
Early_RPL	First communication date inviting people to join.
Latest_RPL	Last communication inviting people to join.
Cancelled_Pax	Number of passengers who made a deposit but cancelled.
Total_Discount_Pax	Number of extra passengers (e.g. professors)
Initial_System_Date	First date when trip was organized.
SPR_Product_Type	Aggregation of tour types.
FPP	Number of full-payment participant.
Total_Pax	Number of total passengers (including extra participants).
DepartureMonth	Month of departure.
GroupGradeTypeLow	Lowest grade type in the trip.
GroupGradeTypeHigh	Highest grade type in the trip.
GroupGradeType	Combination of the above.
MajorProgramCode	Aggregation of program codes.
FPP_to_School_enrollment	The ratio of FPP to school enrollment.
Retained	target

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FINANCE – Dataset

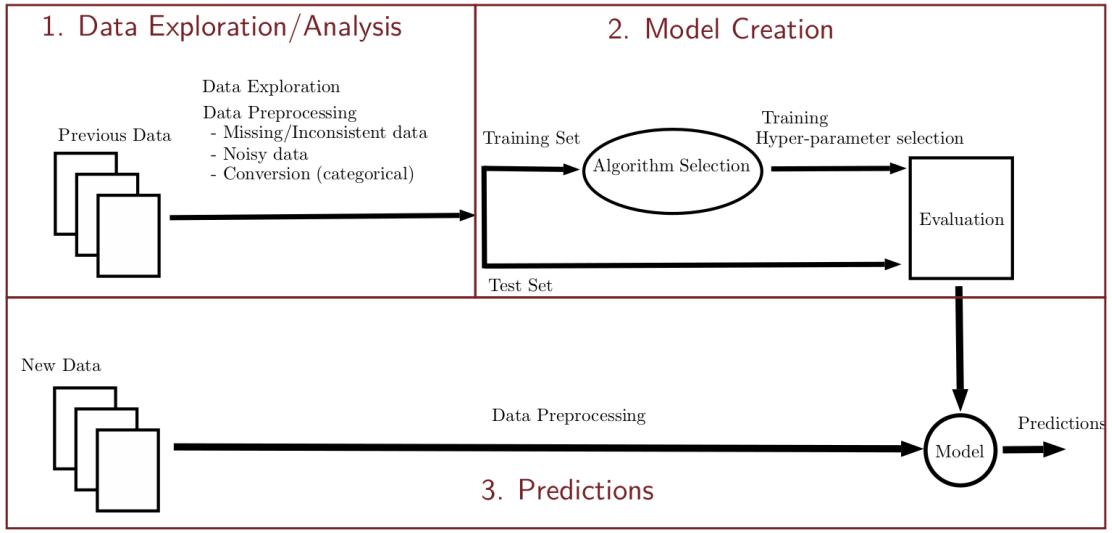
Data field	Description
ID	ID finance department.
Deposit_Date	Expected deposit day.
Special_Pay	Payment modality (internal code)
Tuition	Price per full-payment participant (FPP).
FRP_Active	Number of FPPs who bought trip-cancellation insurance.
FRP_Cancelled	Number of FPPs who bought trip-cancellation insurance and cancelled it.
FRP_Take_up_percent_	Percentage of FPPs who bought the insurance pay for it.
EZ_Pay_Take_Up_Rate	Percentage of FPPs use automatic bank draft.
School_Sponsor	Indication of whether or not the school is sponsoring the trip.
SPR_Group_Revenue	Amount paid for all of the participants.
FPP_to_PAX	Percentage of FPP.
Num_of_Non_FPP_PAX	Number of non-FPP participants.

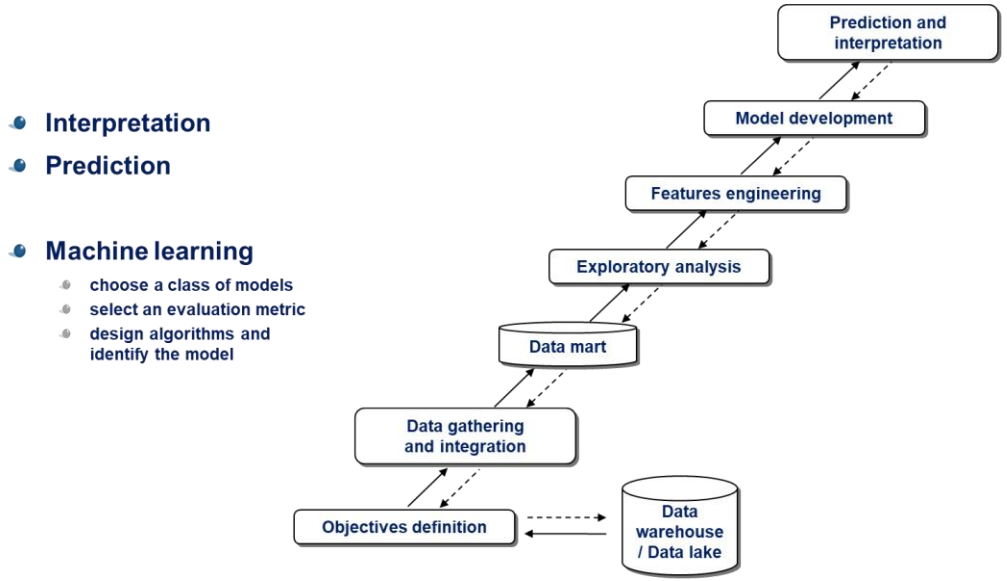
Project Work – Approach

Two datasets are provided:

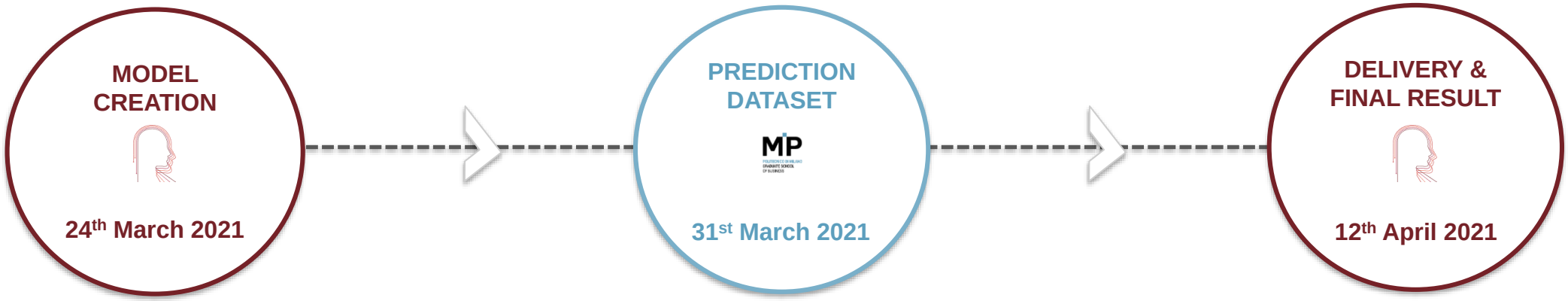
The **Model dataset** contains both the explanatory features and the target variable; this dataset should be used to create/validate your model.

The **Prediction dataset** contains all explanatory variables but no target. Each group must deliver the predicted target values for these records.





Project Work – Deliverables and Timeline



Each group is required to deliver:

a) **The report** describing the model creation process by highlighting the main assumptions/steps such as variable analysis, model alternatives, evaluation method, etc. (Format: .pdf, .doc)
b) **The associated code** containing explanations allowing to understand the entire workflow. (Format: .ipynb, .py, .R, etc).

MIP releases the prediction dataset containing a set of new observations without the target variable to allow each group to perform the pre-process pipeline in the new data and generate the predictions for every single observation.

Each group is required to deliver:

a) **The predictions for the prediction dataset**: The file should contain a table with a single column with the predictions for **every single observation** in the prediction dataset. (Format: .csv)
b) **The slides of the Final Project Presentation** (Format .ppt)

All document must be sent to: mauricioabel.soto@polimi.it

Project Work deliverables will be evaluated according to the following gears and considered part of the **Overall Project Work Evaluation:**

- Quality of the **model developed**
- **Correctness of the predictions** based on the F1 score
- **Conclusions** presented

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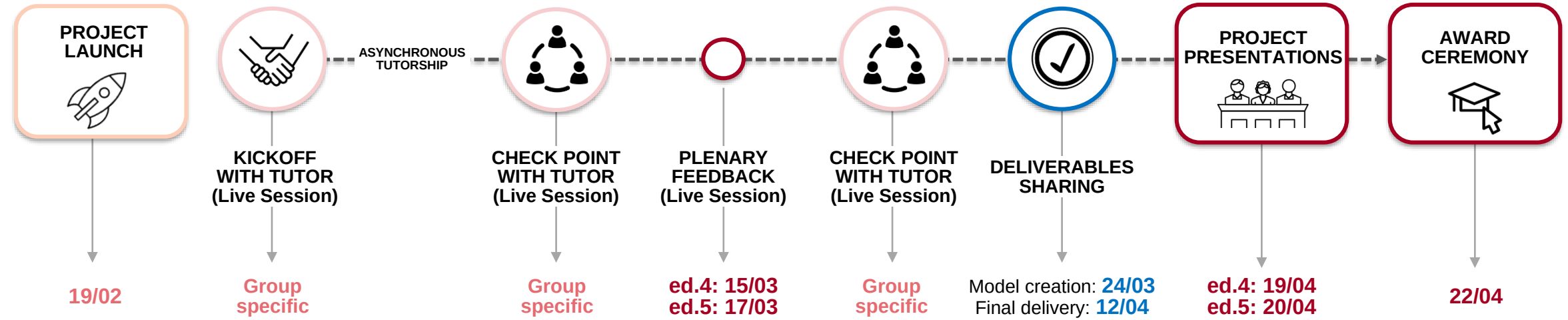
Project Work – The Operating Model

THE MODEL



Asynchronous Tutorship and on-going live Check Points sessions with Tutor will be agreed on directly within each Group

Get to **know each other**

Shape your **operating model** and draw a **collaboration scheme**

Among yourselves

With Tutor

Set **expectations** and **milestones**

Project Work Presentations

PROJECT PRESENTATIONS

ed.4: 19/04
09.00am-1.00pm

ed.5: 20/04
09.00am-1.00pm

TUTOR
Group-Specific Tutor

Carlo Vercellis
Scientific Director

Alessandra Chiuderi
Group Head - Analytics

Alessandro Bonaita
Group Head - Data Science

Project Presentation
20 min

6 GROUPS

Commissions' Questions
5 min

Each group shares and control its own set of slides

All group members actively participate to the presentation

Each Commission's question to be answered by 1 Team member

Final Evaluation will be based on **Tutor & Commission feedback** + **Prediction Model Quality**
The **Winning Solution** will be announced during the **Award Ceremony**

Award Ceremony

AWARD CEREMONY

22th April

9.00 am – 1.00 pm

STEVEN ZUANELLA
Chief Digital Officer
GENERALI

MARCO SESANA
General Manager
Italy & GBL
GENERALI ITALIA

MONICA POSSA
Chief HR & Organization
GENERALI

ANNACHIARA LUCCHINI
Head of Leadership
Development & Academy
GENERALI

CARLO VERCELLIS
School Scientific Director
MIP - POLITECNICO

ALESSANDRA CHIUDERI
Group Head – Analytics
GENERALI

ALESSANDRO BONAITA
Group Head - Data Science
GENERALI

ALBERTA ZAMOLO
Head of Group Academy
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Guests to be confirmed

SPEAK-UP

GENERALI EXECUTIVES
C-Level Questions

Share the questions you would like to ask our Generali Executives during the Award Ceremony

STAND-OUT

PW HACKATHON
Winning Speech

Be ready to share your success formula, in the event your project work group is the winning one.

SHOW-UP

CELEBRATION VIDEO
Participants' Video Story

Share your contributions to create a collective video-story on the DS School learning experience

CELEBRATE

COLLECTIVE PICTURE
DS-School Kit

A NRS Kit will be delivered to you by the Ceremony Date.

Guidelines will follow

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Project Work | Ed.4 – Groups & Kick-Off Sessions

CATALAN FUICA	SEBASTIAN	Group 1	TUTOR MIP *Mauricio Soto* **KICK OFF:** *22 Feb. 10.00-11.00 am +CET*	
SPORTELLI	FEDERICO	Group 1		
HOSPODAR	ROMAN	Group 1		
HERNALSTEENS	FLORIANE	Group 1		
MANARA	OLIVER	Group 1		
THOMPSON	LEE	Group 1		
BEQUET	CHRISTOPH	Group 2	TUTOR MIP *Marco Brambilla* **KICK OFF:** *25 Feb. 2.00-3.00 pm +CET*	
GIACOLLO	MADDALENA	Group 2		
KRAPF	MARIUS	Group 2		
MARAIS	CHARL	Group 2		
SANTOLOCE	SIMONA	Group 2		
BELFIORE	JACOPO	Group 3	TUTOR MIP *Marco Brambilla* **KICK OFF:** *24 Feb. 4.00-5.00 pm +CET*	
BUHNE	STEFAN	Group 3		
DI MAIO	MICHAEL	Group 3		
MAVLYUTOVA	MARINA	Group 3		
TOPIC	VIDA	Group 3		

DE CRISTOFARO	ALESSANDRO	Group 4	TUTOR MIP *Alessandra Menafoglio* **KICK OFF:** *25 Feb. 5.00-6.00 pm +CET*	
ENHARTANA	AFGANTA CHEZAR	Group 4		
JONEN	CHRISTIAN	Group 4		
MACHABERT	CATHERINE	Group 4		
PETRIC	MIHA	Group 4		
TESSARIN	FRANCESCO	Group 4		
CHARAMZA	PAVEL	Group 5	TUTOR MIP *Emanuele Della Valle* **KICK OFF:** *22 Feb. 4.00-5.00 pm +CET*	
CHIOFFI	ANTONIO	Group 5		
FAIMAN	LORENZO	Group 5		
HANDZLIK	RAFAL	Group 5		
PFLEGER	CLEMENCE	Group 5		
SAMELE	NICOLA	Group 5		
PALUMBO	ALESSIA	Group 6	TUTOR MIP *Danilo Ardagna* **KICK OFF:** *25 Feb. 4.00-5.00 pm +CET*	
PARMA	FRANCESCO	Group 6		
POPOVIC	MARIJA	Group 6		
SCHWERING	JAKOB	Group 6		
GOMEZ AGUILAR	JORGE	Group 6		

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Project Work | Ed.5 – Groups & Kick-Off Sessions

MARTINI	FABIO	Group 1
LAWRENSON	CHRIS	Group 1
JUGOVIC	JELENA	Group 1
SCHÄFER	ANDREAS	Group 1
BOUARAB	ACHOUR	Group 1

TUTOR MIP
Mauricio Soto

KICK OFF:
22 Feb.
11.30am-12.30pm +CET

NETZSCH	SEBASTIAN	Group 2
KANAGASUNDARAM	KASTHURIKA	Group 2
SALVALAIO	MARTINA	Group 2
SEMBIANTE	ENRICO	Group 2
SPASOV	IVAN	Group 2

TUTOR MIP
Alessandra Menafoglio

KICK OFF:
25 Feb.
4.00-5.00 pm +CET

BELLARDINI	ALBERTO	Group 3
KOSUTA	GREGOR	Group 3
BATOROVA	ALEXANDRA	Group 3
SURINYA	ZOLTAN	Group 3
YIU	HEDDY	Group 3

TUTOR MIP
Marco Brambilla

KICK OFF:
24 Feb.
3.00-4.00 pm +CET

SIMONETTA	MASSIMO	Group 4
FALKENBACH	INGO	Group 4
KNICKMEIER	KATRIN	Group 4
CHATZIDAKIS	IOANNIS	Group 4
TETELLI	ARBAN	Group 4
LIM	CHAI SIA FIONA	Group 4

TUTOR MIP
Emanuele Della Valle

KICK OFF:
22 Feb.
5.00-6.00 pm +CET

BRAVO	ALICIA	Group 5
MEESER	ALBERT	Group 5
CEVASCO	SILVIA	Group 5
HANZLÍK	VÁCLAV	Group 5
MUREDDU	MAURO	Group 5

TUTOR MIP
Daniele Ardagna

KICK OFF:
25 Feb.
3.00-4.00 pm +CET

STATHOPOULOS	GEORGIOS	Group 6
SHKODRA	FLORA	Group 6
BENGER	RUŽICA	Group 6
ACKERMANN	PETER	Group 6
PEZZATO	MARCO	Group 6
PILECKI	MARIUSZ	Group 6

TUTOR MIP
Mauricio Soto

KICK OFF:
22 Feb.
2.30-3.30 pm +CET

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Project Work – Evaluation Criteria

INDIVIDUAL FINAL EVALUATION

A comprehensive individual evaluation will be shared after course-end

Course Evaluation Methodology

TRAINING ACTIVITIES

COURSE ATTENDANCE	TESTS SCORES
Required > 80%	Weight: 50%

+

PROJECT WORK

GROUP SCORE	INDIVIDUAL CONTRIBUTION
Weight: 25%	Weight: 25%

=

Based on your **Final Results** you will be associated to a Grade Cluster and an **NRS-Badge** will be issued accordingly

BRONZE | **SILVER** | **GOLD** | **PLATINUM**

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Project Work – Approach: as a Team, as an Individual

OWNERSHIP
Act with proactivity and passion for excellent performance

SIMPLIFICATION
Make things simple, adapt quickly and take smart decisions

*Our behaviours describe how we all want to do things and complete our tasks every day, they are **our way of doing** that makes us different from the rest. They are **our commitment**, as a community and as individuals. They are the way we want to measure **how we achieve results***

HUMAN TOUCH
Partner with others, showing empathy and team spirit

INNOVATION
Embrace differences to make innovation happen

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Q&A

Thank you!

NEW ROLE SCHOOLS

GENERALI | We LEARN

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