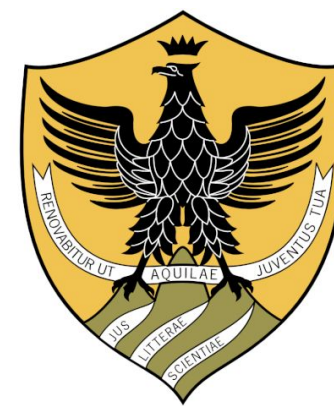


# GRAN SASSO SCIENCE INSTITUTE

## Focus Group: Leveraging MDE techniques on developing Recommender Systems

R. Simioni Pereira, C. Di Sipio, M. De Sanctis, L. Iovino



UNIVERSITÀ  
DEGLI STUDI  
DELL'AQUILA



JOHANNES KEPLER  
UNIVERSITÄT LINZ

[www.gssi.it](http://www.gssi.it)





**NB:** This interview will be audio recorded for later analysis.



# Goal and Background



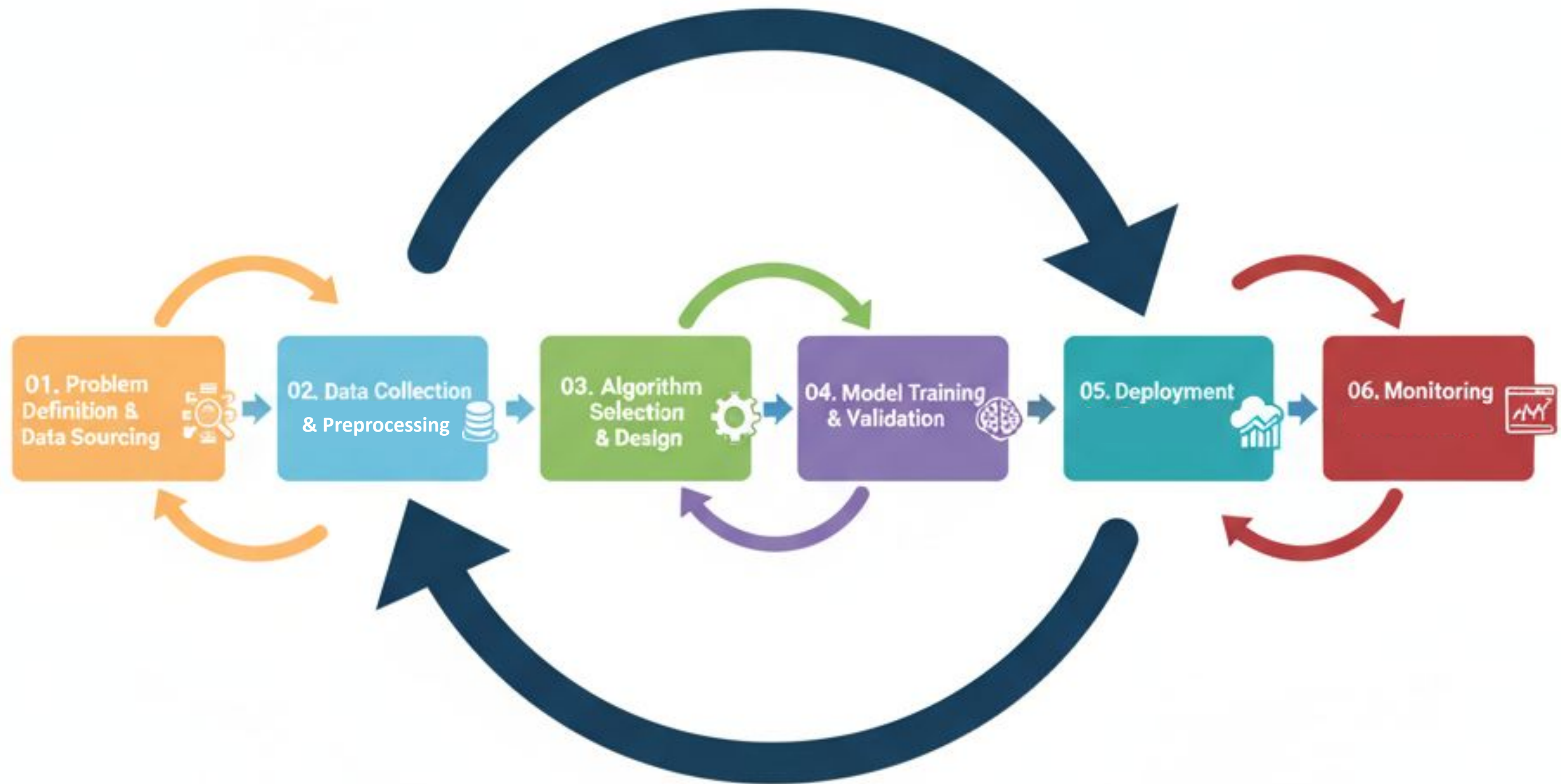
# What are recommender systems?

*“Recommender systems are software tools and techniques providing suggestions for items to be of use to a user. The suggestions provided by a recommender system are aimed at supporting their users in various decision-making processes, such as what items to buy, what music to listen, or what news to read. Recommender systems are valuable means for online users to cope with information overload and help them make better choices.” (Ricci et al.,2022)*





# General Pipeline

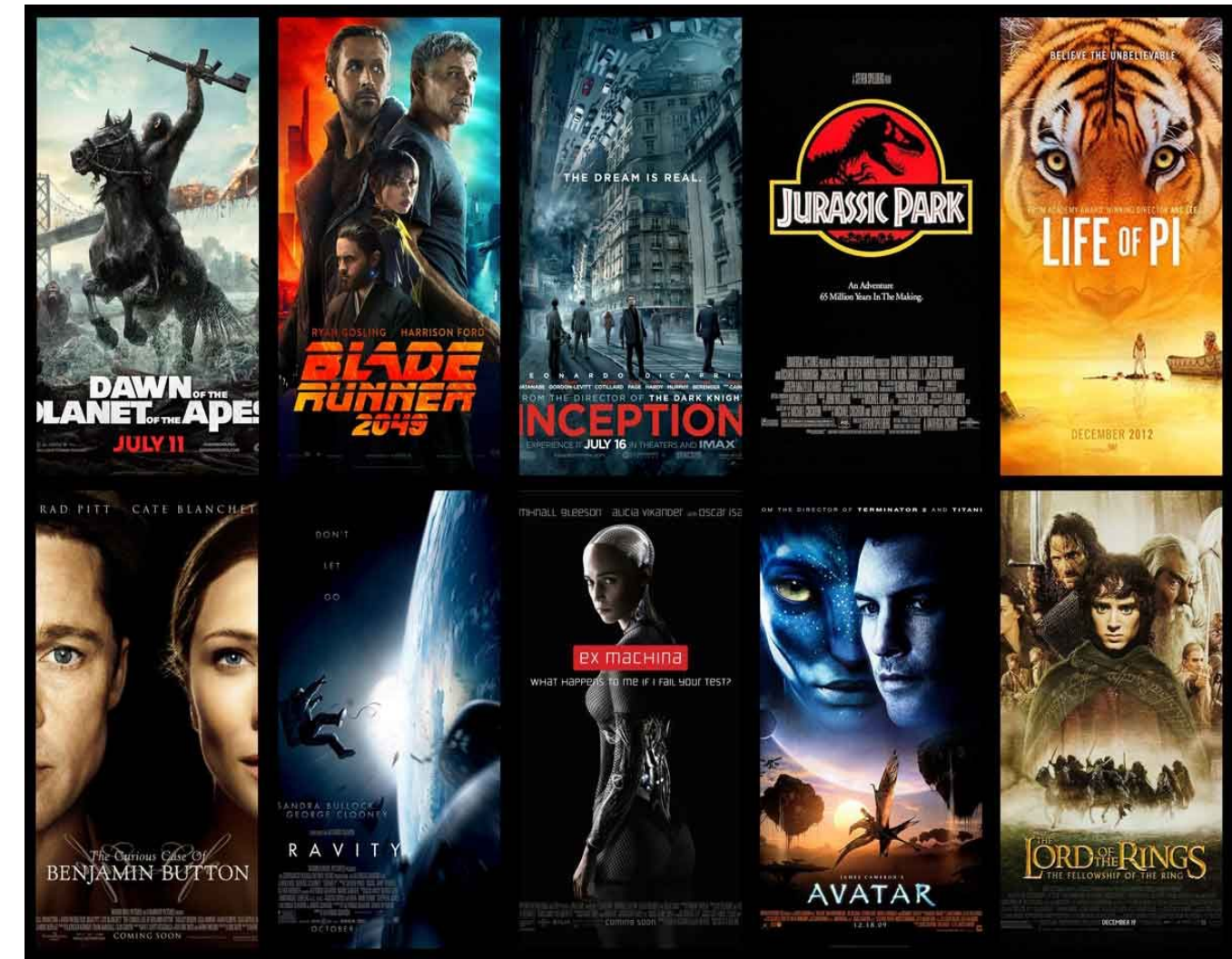




# Motivation



Weather forecast, trail difficulty, trail conditions.



Genres, length, parental guidance.





# Are recommender systems configurable?

Approach	Algorithm	Data Type	Outcomes	Configuration support
Y. Zhang et al. [17]	HB	H	PR	User profile and context-aware data
M. Ummesalma; C. Yashiga [18]	HB	H	PR	User preferences and POIs
J. Neidhardt et al. [19]	HB	H	PR	User profile
M. E. B. H. Kbaier et al. [20]	HB	H	PR	User profile
A. Moreno et al. [21]	HB	H	PR	User preferences, demographic info, and context-aware data
M. Kolahkaj et al. [22]	HB	RT	PR	User preferences and POIs
R. Logesh et al. [23]	HB	H	PR	User preferences
A. Noorian et al. [16]	HB	H	IT	User preferences
L. Esmaeili [24]	HB	H	IT	User preferences
T. D. Pessemier et al. [25]	HB	H	PR	User preferences
R. Logesh et al. [26]	HB	H	PR	User preferences
I. Y. Choi et al. [27]	HB	H	IT	User profile and preferences
K. I. Kotsopoulos et al. [28]	HB	RT	IT	User preferences, itineraries, and POIs
Q. Gu et al. [29]	HB	H	PR	User preferences and flight features
J. Xu et al. [30]	NN	RT	IT	Users (profile, itinerary, and behavior sequence) and POIs
J. Ye et al. [31]	NN	H	PR	User preferences and POIs
L. Chen et al. [32]	NN	RT	PR	User preferences
L. Chen et al. [33]	NN	H	PR	User preferences
G. Zhu et al. [34]	NN	H	PR	User preferences
L. Chen et al. [35]	OP	RT	PR	User preferences
C. Tan et al. [36]	OP	RT	IT	User features
J. L. Sarkar et al. [37]	OP	H	IT	User preferences and POIs
E. Streviniotis; G. Chalkiadakis [38]	OP	H	PR	User and POIs
F. Teklemicael et al. [39]	CF	H	PR	User preferences
Q. Miao et al. [40]	CF	H	PR	Users and POIs
F. Leal et al. [41]	CF	H	PR	User profile
Q. Qi et al. [42]	CF	H	PR	User preferences, social attributes, and consumption behavior
S. Missaoui et al. [43]	CB	H	PR	User preferences
Z. Bahramian; R. Abbaspoura [44]	CB	H	PR	User profile
M. Figueredo et al. [45]	SB	H	PR	User preferences
L. Ravi et al. [46]	SB	H	PR	User profile and POIs
J. Shen et al. [47]	OTHER	H	PR	User preferences
X. Shao et al. [48]	OTHER	H	PR	User preferences
C. Bin et al. [49]	OTHER	H	PR	User preferences and POIs
S. Nikookar et al. [50]	OTHER	H	IT	User preferences and POIs
T. Alenezi; L. Hirtle [51]	OTHER	RT	PR	User preferences, POIs
H. Chiang; T. Huang [52]	OTHER	RT	PR	User preferences and POIs
I. Benouaret; D. Lenne [53]	OTHER	H	PR	User preferences and POIs
A. Gehlot; R. Singh [54]	OTHER	H	IT	User preferences
T. Huang et al. [55]	OTHER	H	IT	User preferences and itineraries



# Practical Session





# Discussion



# Question 1

Was it easy to understand and use the approach?



## Question 2

Did the approach reduce the effort of developing a recommender system?





## Question 3

Do you believe the approach reduces **error-proneness** and **time-to-market (TTM)** through automation compared to manual development of the recommender system?



## Question 4

How well did the approach allow you to experiment with different recommendation strategies without modifying the code?



## Question 5

How effectively did the approach support reusing the recommender system in different domains?





## Question 6

Would you consider using this approach in future projects involving recommender systems?



# Thank you!

## Any comments, additions, insights, questions?



Rickson Simioni Pereira

[rickson.pereira@gssi.it](mailto:rickson.pereira@gssi.it)

