

# Senior Analytics Engineer

## Growth & Acquisition

### **Ciao, and welcome to your business case!**

WeRoad is a community of travelers, united by their love for travel, adventure, and discovering faraway lands and cultures. We bring together small groups of like-minded millennials and send them on life-changing experiences to 1000+ destinations all over the globe. Founded in 2017, we're a dynamic, ambitious team of more than 190 people experiencing exponential growth in Italy, Spain, the UK, France and Germany, and now expanding internationally.

Thank you for applying to join WeRoad as our next Senior Analytics Engineer.

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We are looking for a top-tier Senior Analytics Engineer to join our Data & Analytics team and help us transform how people explore the world. In this role, you will design and own the analytical data foundations that power performance marketing, acquisition, and CRM decision-making, directly shaping how WeRoad measures, understands, and scales sustainable growth. Your work will directly influence multimillion-euro marketing investments by ensuring data is accurate, reliable, well-modeled, and decision-ready.

Please answer all the provided questions the best you can. There is no right answer, we value the thought process and explanation clarity above all. If you're going to leverage LLMs for this task, no problem: *do it in a smart way*. AI should enhance your skills, not substitute them!

# #1 Budget planning and customers acquisition

## Hypothesis

- There is a lag between when we invest in certain marketing activities (excluding PPC Brand) and when we observe an effect on the number of customers acquired and consequently on the CAC
- The distance between cause and effect depends on both the channels (push vs. pull) and, of course, seasonality

## Questions

Considering table(1) and the data available in this [BC\\_weekly-data\\_mktg.xlsx](#):

- How would you proceed to address the hypothesis?
- What types of analysis would you conduct?
- Which methodologies would you use?
- What relevant information do you think is missing?

## Available information:

Surveys:

Conversion Window	%
more than 3 months	55.97%
1 month	15.72%
1 week	7.95%
2 weeks	7.72%
2 months	7.48%
3 months	5.16%
<b>Grand Total</b>	<b>100.00%</b>

Channel	%
Word of mouth	41.14%
Instagram	22.68%
Facebook	16.82%
Google	13.78%
Others	5.58%
<b>Grand Total</b>	<b>100.00%</b>

Table 1

## #2 Users/Visits forecasting and metrics analysis

Considering the data available in the file: [Historical Data - daily sessions.xlsx](#)

- How would you calculate the forecast of future visits?
- Would you approach organic visits differently from paid visits?
- What variables would you consider in both cases?
- Are there any missing pieces of information that you think are necessary to carry out this task?

Looking at table (2) and considering the surveys, it is observed that with the current tracking systems it's difficult to attribute (and therefore optimise) paid activities immediately.

- How would you approach this challenge?
- The performance team should try to automate bidding strategies as much as possible to enable the platforms' ML. Looking at the table (2), would you focus on a single event and try to build something ad-hoc? If so, what information would you ideally like to have available?

### Available information:

Funnel by channel:

Type	Channel	Sessions	Travel page view	Add to cart	Checkout #steps	Purchase
Paid Acq	Meta Advertising	28,15%	19,98%	9,22%	1,75%	0,63%
DTS	Organic Search	19,99%	21,93%	28,23%	35,88%	37,77%
DTS	Google PPC Brand	13,49%	22,24%	23,04%	28,57%	31,71%
DTS	Direct to Website	12,97%	13,70%	17,93%	19,85%	16,68%
Paid Acq	Google PPC NO Brand	10,92%	10,39%	8,61%	3,83%	2,69%
Paid Acq	Criteo	2,12%	1,93%	0,80%	0,69%	1,14%
Paid Acq	TikTok Advertising	0,87%	0,50%	0,30%	0,12%	0,01%
DTS	Bing PPC Brand	0,83%	1,02%	1,05%	1,92%	2,72%
Paid Acq	GDN & Youtube	0,36%	0,20%	0,17%	0,11%	0,13%

Table 2

## #3 Conversion rate and funnel

The following is a real question from one of our business stakeholders. We want to see your awareness of the choices and assumptions made when doing analysis and see your ability to present clear conclusions and recommendations.

The following question was raised by the Italian Country Manager at WeRoad:

***"We tried to analyse the conversion data across the entire funnel for WeRoad Italy, comparing March 2024 vs March 2023. The reason for the analysis is that conversion rate YoY is flat. So, we wanted to identify where within the funnel we see the main drop offs and delta YoY, to be able to think about what levers we have to improve them."***

### Questions:

Here we are referring to table (3), and the questions are deliberately open-ended: in our team you will be expected to lead on the structure of and approach to analysis in your area.

- Please describe what the data presented indicates to you about the situation.
- Please describe what next steps you would take in further analysis, specifically to guide the decision making process on improving the conversion rate (CRO).
- What teams and functions at WeRoad would you consider in further analysis? Why?
- What biases should be considered from these teams or functions?

## Available information:

Country IT	mar-23	mar-24	Delta	Notes
<b>Total sessions</b>	848.714	1.763.390	108%	2023 sessions are underestimated by roughly 10-15%, due to consent mode tracking
<i>CTR Homepage / landing page</i>	80,10%	61,36%	-23%	
Travel page sessions	679.817	1.082.069	59%	
<i>CTR 2° Travel page to cart</i>	4,16%	5,42%	30%	
#Add to Cart	28276	58674	108%	
<i>CTR 3° Cart to checkout</i>	10,94%	10,67%	-2%	
#Pax	3.092	6.261	102%	
<b>Overall CR%</b>	0,36%	0,36%	-3%	If we try to compute a cleaner CR comparison, delta should be around +10%
<b>CR% Pax/Travel page sessions</b>	0,45%	0,58%	29%	If we try to compute a cleaner CR comparison, delta should be around +40%
<b>Focus only paid sessions LPs</b>	mar-23	mar-24		
Total sessions	246.603	341.750	39%	
CTR from LP to WR website (either HP or Travel pages)	89,39%	63,16%	-29%	
#click throughs	220.438	215.849	-2%	
<b>Focus only HP sessions</b>	mar-23	mar-24		
Total sessions	196.273	485.562	147%	2023 sessions are underestimated by roughly 10-15%, due to consent mode tracking
CTR	28,79%	15,77%	-45%	Mar-23 not sure if datas are reliable (old lookerstudio dashboard)
#click throughs	56.507	76.573	36%	

Table 3