



**BUSINESS ANALYTICS
SKILLS FOR THE FUTURE-
PROOF SUPPLY CHAINS**

WORKSHOP CELIE – C1



Overview of the Celje Workshop

(January 12–17, 2025)

The workshop was held at the Faculty of Logistics, University of Maribor. It was a comprehensive, five-day event dedicated to testing the teaching materials developed within the BAS4SC project (Appendix 1). The program included lectures, intensive practical workshops, discussions, and collaborative activities involving students and researchers from the project partners.

Day 1 – January 12 (Sunday): Participant Arrival

Participants arrived in Celje throughout the day, allowing them to settle in comfortably and prepare for the event.

Day 2 – January 13 (Monday): Opening Ceremony and Introductions

The official opening included registration and a series of welcome speeches delivered by the Dean of the Faculty of Logistics, the BAS4SC Project Leader, and the local event coordinator. The event agenda was presented, along with information on consortium members participating in the testing, the objectives of the meeting, and the tools used to verify them. After a lunch break, a networking session and participant introductions were held. The day concluded with a brief organizational discussion to outline plans for the upcoming activities..



Fig. 1 Project Partner Integration

Day 3 – January 14 (Tuesday): Lectures and Workshops – C1 Book (Chapters 1–4)

The first day of substantive work focused on chapters 1–4 of the Advanced Using Spreadsheets to Analyze Logistics Data (C1) textbook. Lectures were conducted in the morning, followed by discussions on possible improvements to the content. After the lunch break, participants engaged in workshops, working on the tasks and analytical methods included in the materials. The day concluded with a debriefing session and completion of the evaluation tools



Fig. 2 Lectures

Day 4 – January 15 (Wednesday): Lectures and Workshops – C1 Book (Chapters 5–8)

The program continued the structure of the previous day, with lectures covering chapters 5–8 of the *Advanced Using Spreadsheets to Analyse Logistics Data* (C1) textbook. Following the lectures, students participated in hands-on workshops, working on assignments, discussing solutions, and testing the analytical tools presented in the materials. The day concluded with a summary session and completion of the evaluation tools for this section of the textbook.

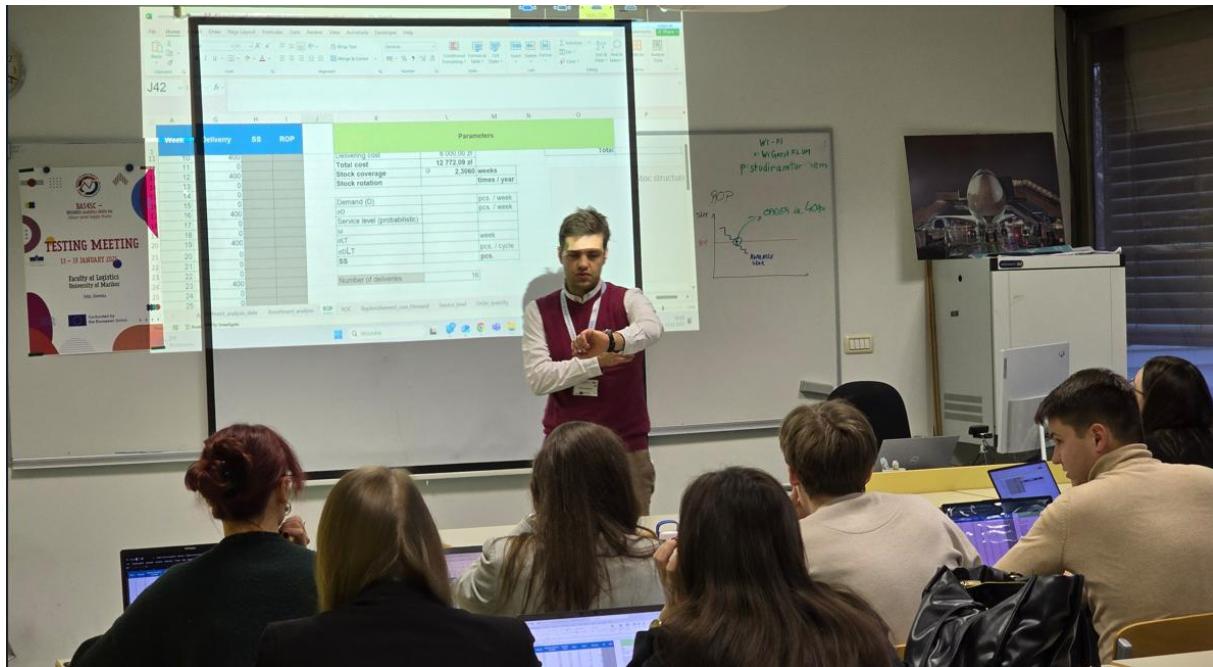


Fig. 3 Case study

Day 5 – January 16 (Thursday): Advanced Content and Case Studies

The day began with participants studying chapters 9–10 of the *Advanced Using Spreadsheets to Analyse Logistics Data* (C1) textbook. This was followed by a workshop based on a decision-making game, providing students with the opportunity to apply their knowledge in an interactive setting. In the afternoon, two case study modules were conducted, during which students solved problems and discussed their results. The day concluded with a summary debriefing and the final completion of the evaluation tools.



Fig. 4 Discussions on the textbook and materials

Day 6 – January 17 (Friday): Competition, Evaluation, and Workshop Summary

The final day began with a student competition based on content from the *Advanced Using Spreadsheets to Analyse Logistics Data* (C1) textbook. After announcing the results, an evaluation discussion was held, involving both the students and the consortium partners. The workshop concluded with scheduling dates for further testing activities and a summary of the entire event, highlighting key outcomes and feedback.



Fig. 5 A group photo of the BAS4SC workshop participants



Workshop evaluation

Question: How do you evaluate the organization of the piloting & testing activity in general?

Of the 22 responses, 59.1% of students rated this criterion a 5, 27.3% rated it a 4, 4.5% a 3, and 9.1% a 2. The average rating was 4.36, representing 87.3% of the maximum possible score.

Interpretation:

The results indicate that the organization of the pilot and testing activities was rated above average. Most students found the process efficient and considered the pilot event well-structured, supporting the achievement of the course objectives. However, the lower ratings suggest that some participants may have required additional clarification on organizational aspects, such as the schedule, initial instructions, or technical support.

Comment:

Overall, the pilot was organized to a high standard. To further enhance participant satisfaction, it is recommended to standardize communication regarding subsequent steps and improve the availability of technical support. Implementing these measures could reduce individual lower ratings and ensure a more consistent and positive experience for all participants.

Question: How do you evaluate the way the classes were conducted?

Of the 22 responses, 63.6% of students rated the course delivery as a 5, 31.8% as a 4, and 4.5% as a 3. The average rating was 4.59, representing 91.8% of the maximum possible score.

Interpretation:

The results indicate that the classes were delivered in an engaging, clear, and student-friendly manner. Students valued the organization, clarity of content, and the instructors' competence. The high proportion of 5s and 4s shows that the delivery format effectively met



participants' needs, supported learning, and encouraged active involvement. The single lower rating may reflect individual difficulties or minor areas for improvement in pace or teaching style.

Comment:

The evaluation confirms that the course delivery successfully met student expectations and represents a strong aspect of the program. To further enhance teaching quality, it is recommended to incorporate additional practical examples or brief summaries during classes. These measures could support students who benefit from a more structured approach and help reduce occasional lower ratings while reinforcing positive learning experiences.

Question: How do you evaluate the organization of the trip?

Of the 22 responses, 81.8% of students rated the organization of the trip a 5, 13.6% a 4, and 4.5% a 3. The average rating was 4.77, representing 95.4% of the maximum possible score.

Interpretation:

The results indicate that the trip was organized to a very high standard. The vast majority of students were fully satisfied with both the logistical arrangements and the execution of the program's activities. The few lower ratings likely reflect minor individual inconveniences, which do not significantly affect the overall very positive evaluation.

Comment:

The evaluation confirms that the trip's organization was a strong element of the project. To further enhance future initiatives, it is recommended to conduct brief pre-departure preference surveys. This would allow tailoring the program more closely to participants' expectations, further increasing satisfaction and minimizing the likelihood of lower ratings.

**Question: How do you evaluate the organization of
accommodation?**

Of the 22 responses, 68.2% of students rated the accommodation arrangement a 5, 18.2% a 4, 4.5% a 3, and 9.1% a 2. The average rating was 4.45, representing 89.1% of the maximum possible score.



Interpretation:

The results indicate that overall student satisfaction with the accommodation arrangement was high, though there was greater variability in ratings compared to other project elements. While most participants were satisfied, some lower ratings suggest the presence of minor issues related to comfort, location, or logistical aspects.

Comment:

Despite generally positive feedback, the findings point to the need for closer attention to accommodation arrangements. It is recommended to clarify the standards of the facilities, improve communication about accommodation conditions, and, where possible, pre-screen rooms to ensure comfort. Implementing these measures will better align accommodation with student expectations and reduce the occurrence of lower ratings.

Question: How do you evaluate the place where the piloting & testing activity was organized?

Of the 22 responses, 63.6% of students rated the pilot and testing location a 5, 22.7% a 4, and 13.6% a 3. The average rating was 4.50, representing 90.0% of the maximum possible score.

Interpretation:

The results show that the majority of students were very satisfied with the location of the pilot and testing activities. The high proportion of 5 and 4 ratings indicates that the space was well-chosen, functional, and conducive to the successful implementation of the activities. The presence of several 3 ratings suggests that some participants experienced minor limitations or inconveniences.

Comment:

To further improve the quality of future events, it is recommended to carefully review and address any potential shortcomings of the location. Particular attention should be paid to ensuring that technical and logistical conditions are fully optimal. These measures will help make the venue even more suitable for the activities and provide a consistently positive experience for all participants.



Question: Will you recommend activity to your colleagues?

Of the 22 responses, 77.3% of students rated this criterion a 5, and 22.7% a 4. No lower ratings were given. The average rating was 4.77, representing 95.4% of the maximum possible score.

Interpretation:

This high score clearly indicates that participants were very satisfied with the activities and perceived them as valuable and recommendable. The absence of ratings below 4 demonstrates an exceptionally positive reception in terms of both content and organization. Students found the activities engaging, useful, and supportive in developing their competencies.

Comment:

The results confirm that the activities met or even exceeded participants' expectations. To maintain this high standard, it is recommended to continue employing the same teaching methods and to ensure consistency in both organizational and content aspects for future activities.

General comments

Student feedback shows that the project was very positively received, both in terms of organization and content. Many participants highlighted that the project was extremely well-organized, the overall experience was excellent, and the instructors were highly prepared, which contributed to smooth, engaging, and effective classes. The Excel sessions and lectures were considered very interesting and professionally delivered, demonstrating the high educational value of the materials and offering students opportunities to apply their knowledge practically in professional contexts.

Students also expressed considerable personal satisfaction, with some comments reflecting emotional engagement, such as "I fell in love with Slovenia," highlighting that the cultural and experiential aspects of the trip were highly valued. Accommodation and overall logistical organization were positively noted. Only a single comment suggested that better promotion of the event could increase interest and attendance in the future.



Overall, student sentiment was overwhelmingly positive, with many stating they would definitely recommend the project to their peers. These reviews underscore the successful integration of high-quality instruction, valuable practical experience, and an enjoyable, inspiring international environment.



Conclusions

The organization of the workshops in Celje was exceptionally well-planned and coherent, which had a very positive impact on the overall event. The program carefully considered both participant arrival and accommodation times, and included a structured introduction through registration and official welcome speeches. The opening sessions, featuring addresses by the dean, the project leader, and the local coordinator, established a clear organizational framework and allowed participants to understand the goals and structure of the event from the very beginning.

The daily schedule was highly functional, with regular coffee breaks and refreshments that encouraged participants to recharge and facilitated informal exchanges of experience. Each day began with lectures and ended with workshops and debriefings, ensuring a systematic and predictable flow. This organization helped participants orient themselves quickly and smoothly transition from theoretical content to practical application.

Practical sessions – including thematic workshops, interactive decision-making games, and case studies – were especially well-received. Clearly defining the objectives of each block, alongside the problem-solving methods and analytical tools to be used, promoted efficient use of time and higher participant engagement. Time for discussions and evaluations was also incorporated, allowing for continuous feedback and minor adjustments throughout the workshops.

Effective time management was a key element of the event. Sessions were sufficiently long to cover all topics and practice the planned activities, while breaks provided a relaxing environment without interrupting the flow of the program. The final day, focused on a student competition, evaluation discussion, and debriefing, served as a logical culmination, enabling both the assessment of learning outcomes and reflection on the workshop organization.

The didactic structure of the *Advanced Using Spreadsheet to Analyse Logistics Data* (C1) textbook was successfully tested in practice. Student engagement was central to the success of the workshops, allowing for a precise assessment of the materials' quality. Both students and consortium members confirmed the logical and progressive structure of the content.



Overall, the workshops provided a strong foundation for further testing activities. Participants agreed that the event generated valuable insights needed to refine the materials and plan subsequent stages of the BAS4SC project.



Appendix 1



The banner features the BAS4SC logo at the top left. The main text 'TESTING MEETING' is in large orange capital letters. Below it, the dates '13-17 JANUARY 2024' are in orange, followed by the location 'CELJE, SLOVENIA' in orange. At the bottom left, there is a small line of text 'TESTING MEETING' and a small blue square icon.

**TESTING
MEETING**

**13-17
JANUARY
2024**

CELJE, SLOVENIA



 BAS4SC – Business Analytics Skills for the Future-proof Supply Chains

AGENDA OF THE TESTING MEETING

Date	Hours	Activity	Room
12.01.2025 Sunday	00:00-24:00	Participants arriving in Slovenia (📍)	
13.01.2025 Monday	8:00-11:00	Welcome and registration of participants	
	11:00-13:00	Opening of testing event at Faculty of Logistics UM Welcome speech by the Dean of FL UM Welcome speech by the Project Leader of BAS4SC Project Consortium Welcome speech by the Project coordinator for testing event at FL UM	
	13:00 - 13:15	Coffee Break	
	13:15-14:45	Presentation of testing event Agenda Presentation of participating consortium members in testing Presentation and definition of meeting goals and tools for verifying goals	
	14:45-15:45	Lunch break	
	15:45-17:15	Introduction of visiting participants (students) Social networking between participants	
	17:15-19:00	Short discussion on follow-up days and additional questions	
14.01.2025 Tuesday	8:00-9:30	Lectures from C1 Book (Chapter 1-2) Presentation of Chapters 1&2 from C1 Book Short discussion on potential improvements and additional questions	
	9:30-9:45	Coffee break	
	9:45-11:15	Lectures from C1 Book (Chapter 3-4) Presentation of Chapters 3&4 from C1 Book Short discussion on potential improvements and additional questions	
	11:15-12:15	Lunch break	

TESTING MEETING

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BAS4SC – Business Analytics Skills for the Future-proof Supply Chains			
15.01.2025 Wednesday	12:15-13:45	Workshops on C1 Book (Chapter 1-2) Presentation and work with students on workshop from C1 Book Presentation of the method of solving tasks and using analytical tools	
	13:45-14:00	Coffee break	
	14:00-15:30	Workshops on C1 Book (Chapter 3-4) Presentation and work with students on workshop from C1 Book Presentation of the method of solving tasks and using analytical tools	
	15:30-16:00	Summary of the testing materials from C1 Book (Chapter 1-4) Completing the evaluation tools	
	8:00-9:30	Lectures on C1 Book (Chapter 5-6) Presentation of Chapters 8&9 from C1 Book Short discussion on potential improvements and additional questions	
	9:30-9:45	Coffee break	
	9:45-11:15	Lectures on C1 Book (Chapter 7-8) Presentation of Chapters 7&8 from C1 Book Short discussion on potential improvements and additional questions	
	11:15-12:15	Lunch break	
	12:15-13:45	Workshops on C1 Book (Chapter 5-6) Presentation and work with students on workshop from C1 Book Presentation of the method of solving tasks and using analytical tools	
	13:45-14:00	Coffee break	
16.01.2025 Thursday	14:00-15:30	Workshops on C1 Book (Chapter 7-8) Presentation and work with students on workshop from C1 Book Presentation of the method of solving tasks and using analytical tools	
	15:30-16:00	Summary of the testing materials from C1 Book (Chapter 5-8) Completing the evaluation tools	
	8:00-9:30	Lectures on C1 Book (Chapter 9-10) Presentation of Chapters 9&10 from C1 Book Short discussion on potential improvements and additional questions	
	9:30-9:45	Coffee break	
	9:45-11:15	Workshop with decision game Presentation and work with students on workshop with decision game Presentation of the method of solving tasks and using analytical tools	
<hr/> TESTING MEETING <hr/>			
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	13:45-14:00	Coffee break	
	14:00-15:30	Case study presentation from C1 Book Case study solving with students and result discussion	
	15:30-16:00	Summary of the testing materials from C1 Book (Chapter 9-10) Summary of case study solving and testing Completing the evaluation tools	
17.01.2025 Friday	8:00-10:00	Student competition based on C1 Book materials Result announcement	
	10:00-11:30	Discussion on the success of the training with students and potential improvements and evaluation Discussion on the success of the training between consortium members	
	11:30-11:45	Coffee break	
	11:45-14:00	Meeting Summary Determination of Dates for Further Testing Activities	

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