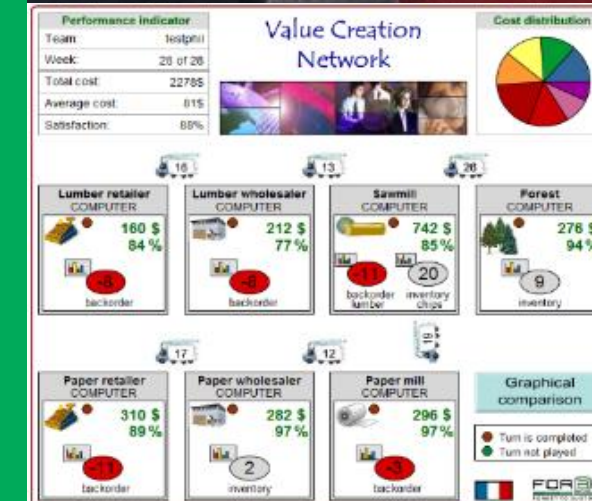


INTRODUCTION

Wood Supply Game Competition 2026

Christoph Kogler & Philippe Marier



AGENDA

- 1. Motivation
- 2. Wood Supply Game
- 3. Competition
- 4. Training
- 5. Questions

MOTIVATION

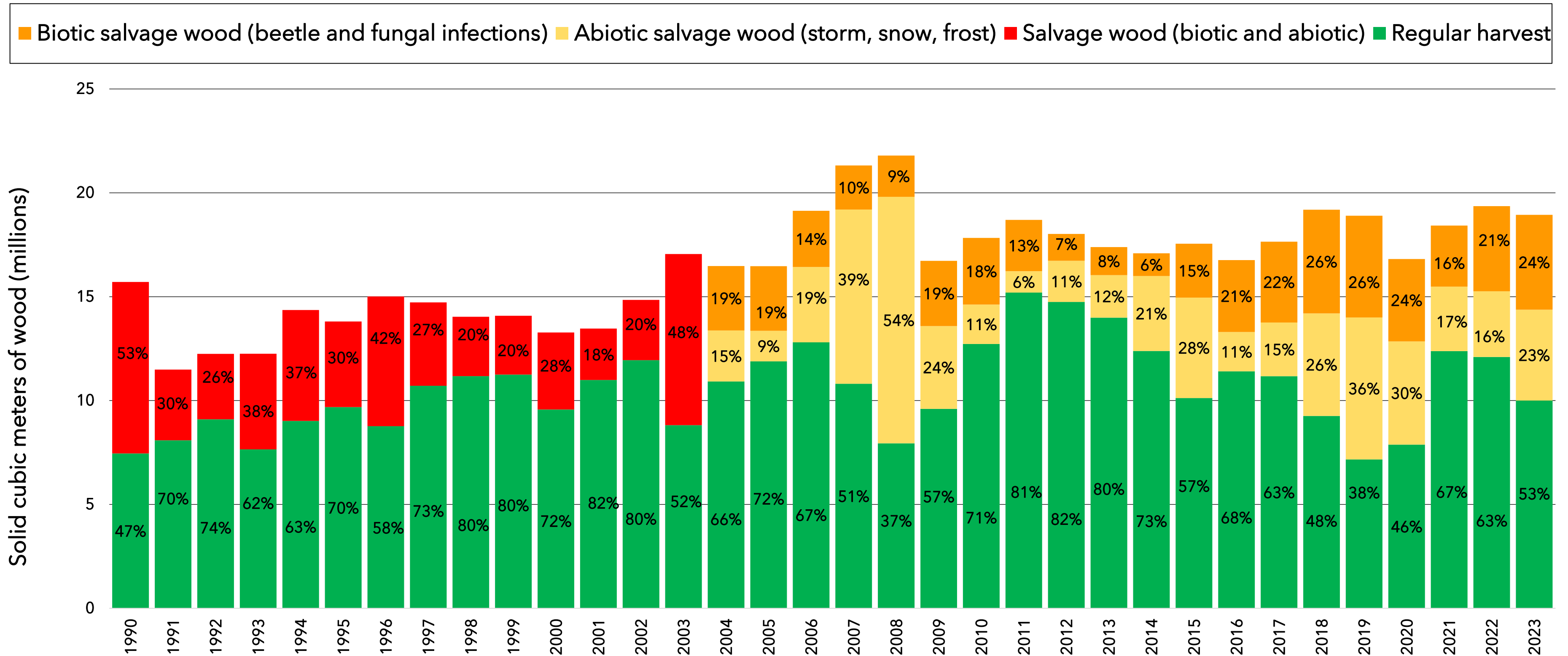
1

RELEVANCE

Countries 2023	Export (E) Ranking	E Ratio	Import (I) Ranking	I Ratio	Trade Balance (B) Ranking	B (USD thousand)	E / Capita Ranking	I / Capita Ranking	B / Capita Ranking
China	1	10,6%	2	11,4%	192	-1.944.257	69	116	92
Canada	2	9,0%	9	2,2%	1	9.969.579	13	46	9
Germany	3	7,0%	5	5,1%	9	2.520.300	22	45	31
USA	4	6,4%	1	15,5%	199	-14.512.972	53	55	154
Russia	5	4,2%	59	0,2%	2	6.011.910	44	156	23
Austria	6	3,7%	11	2,0%	12	2.298.063	3	8	8
Vietnam	7	3,4%	20	1,1%	4	3.332.459	38	104	28
Sweden	8	3,2%	13	1,6%	13	2.277.368	9	22	11
Poland	9	3,0%	19	1,2%	8	2.559.406	24	72	20
Indonesia	10	2,7%	49	0,3%	3	3.459.496	62	158	38

1

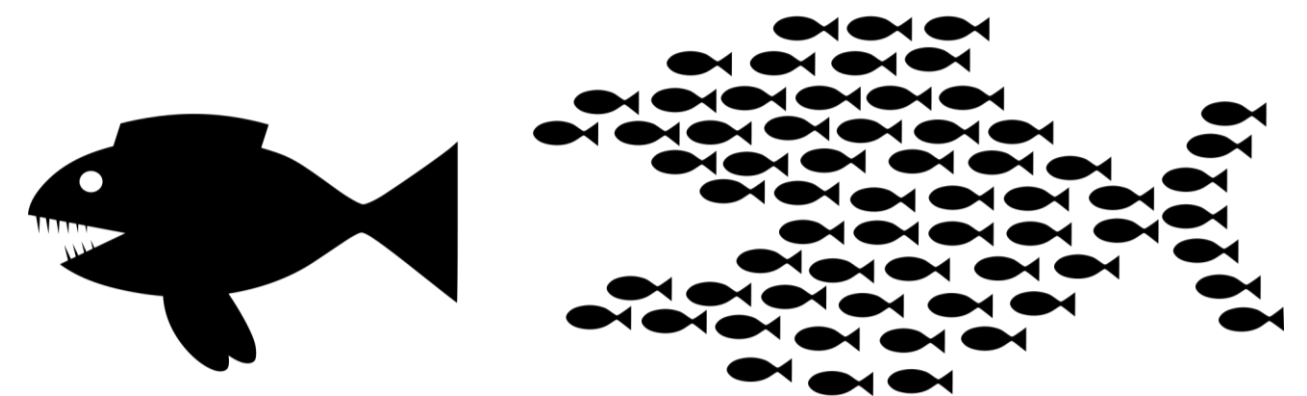
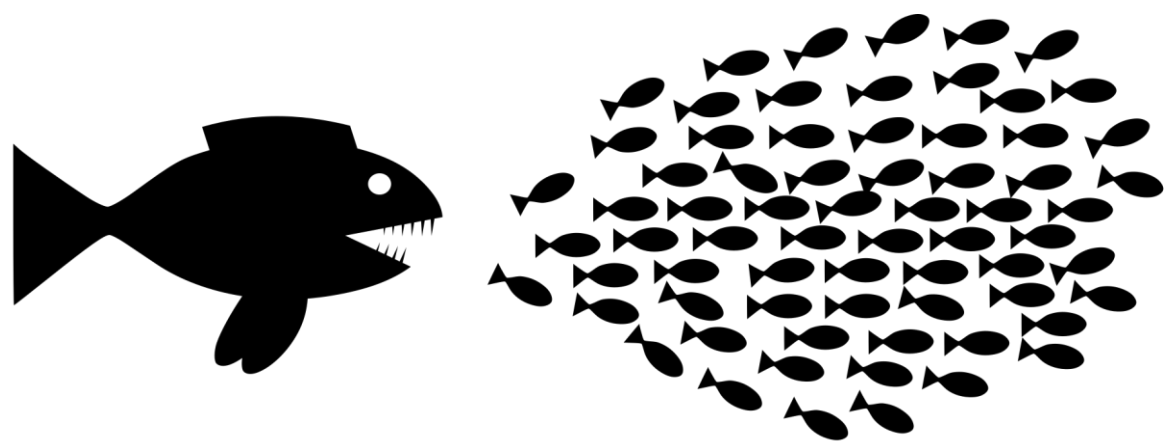
RISK MANAGEMENT TO MITIGATE SALVAGE WOOD



1

CULTIVATING KEY COMPETENCIES

- International cooperation and benchmark
- Digitalization, decision-making and problem solving
- Leadership, teamwork, strategy formulation and process management
- Quantitative decision support, key performance indicator evaluation, forecasting of trends and data analysis



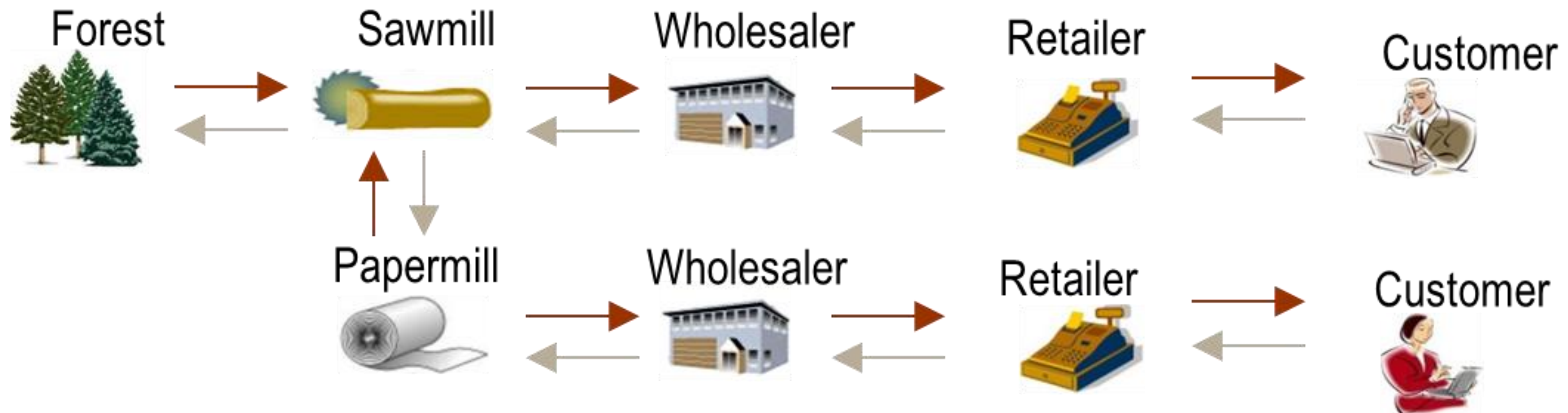


WOOD SUPPLY GAME

2

INTRODUCTION

- Supply chain simulation adapted (FORAC) from the MIT Beer Game
- 7 actors along the wood supply chain
- Each decision maker places orders to supplier to satisfy own customer's orders
- Minimize inventory and backorder costs



- Help understand the **bullwhip effect**
- Show the benefits of collaboration and **information sharing**
- Experience that collective results of **working in silos** can be catastrophic
- Allows to **experience team work** at all management level
- Can be played alone, in team or **competing** against other teams
- **Three servers**: Hong Kong, Sweden, Canada

- Introduction:

<https://apps.forac.ulaval.ca/woodSupplyGame/AideJeuBois/EN/indexEN.htm>

- How to play:

<https://apps.forac.ulaval.ca/woodSupplyGame/AideJeuBois/EN/rulesEN.htm>

- Positions:

<https://apps.forac.ulaval.ca/woodSupplyGame/AideJeuBois/EN/positionsEN.htm>

- Parameters:

<https://apps.forac.ulaval.ca/woodSupplyGame/AideJeuBois/EN/parametresEN.htm>

2 LOGIN

1 <https://woodsupplygame.slu.se/Start.aspx>

2 Wood supply game FORAC

Play game

Create a game

Game administrator



3 Wood supply game FORAC

register to play

Your name: Christoph

Choose game:

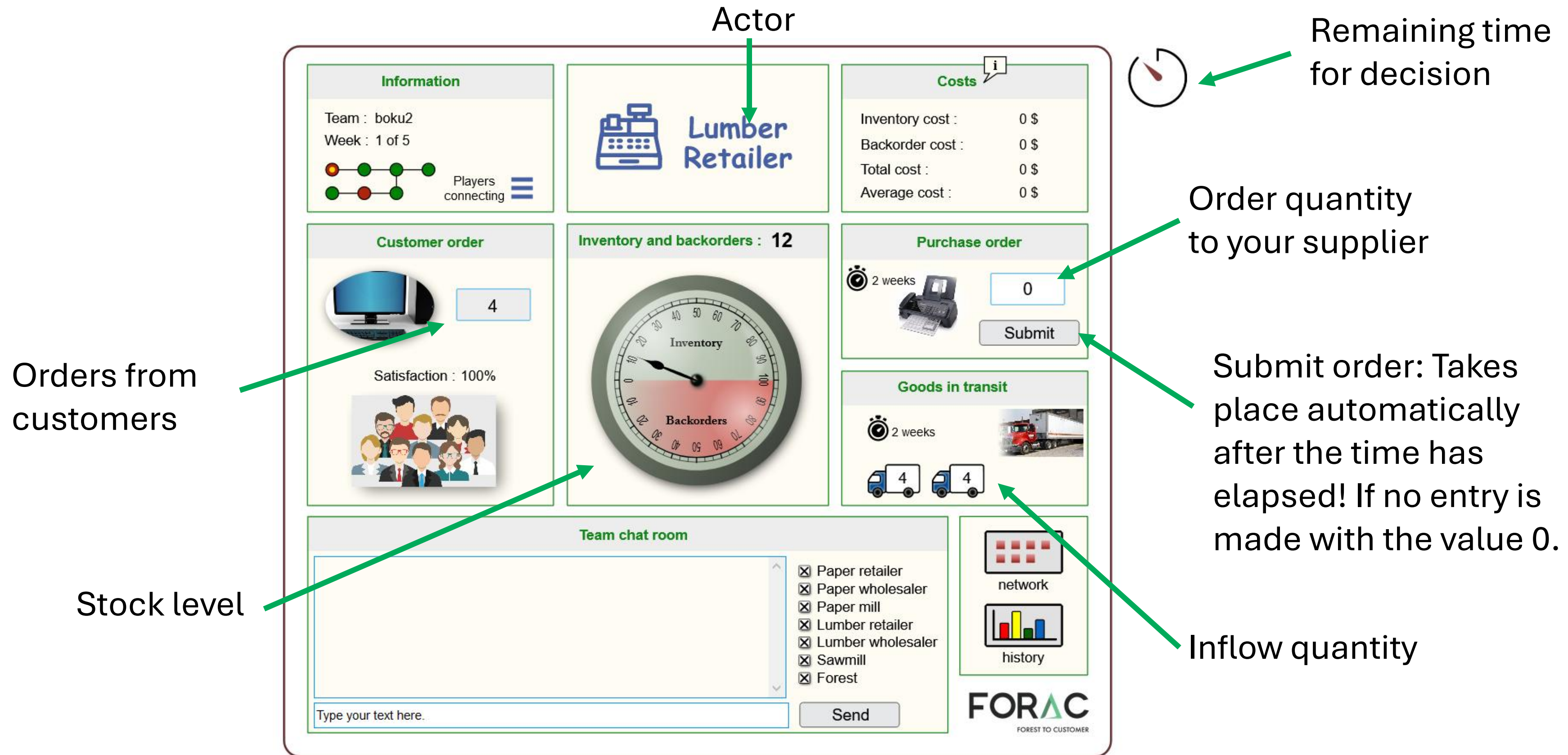
- Freiburg_3_TeamB
- Freiburg_3_TeamA
- Freiburg_2_TeamB
- Freiburg_2_TeamA
- Freiburg_1_TeamB
- Freiburg_1_TeamA
- TestJan282025
- ProMi-test
- QRX
- griz18c

Position

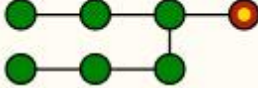
- ☐ Paper Retailer
- ☐ Paper Wholesaler
- ☐ Paper Mill
- ☐ Lumber Retailer
- ☐ Lumber Wholesaler
- ☐ Sawmill
- ☒ Forest

GO

Back to menu



2 GAME CONTROL FORESTRY

Information
Team : boku2
Week : 1 of 5
 Players connecting =

**Forest**

Costs
Inventory cost : 0 \$
Backorder cost : 0 \$
Total cost : 0 \$
Average cost : 0 \$

Customer order

Satisfaction : 100%
8

Inventory and backorders : 12


Forest operations
1 week  0
7  Submit

In transit to customer
2 weeks 
8  8 

Supply plan
Max: 450
Cumul: 0
Week: 1 2 3 4 5
Min: 7 7 7 6 6
Max: 18 18 18 24 24

Team chat room

Type your text here.

Send

- ☒ Paper retailer
- ☒ Paper wholesaler
- ☒ Paper mill
- ☒ Lumber retailer
- ☒ Lumber wholesaler
- ☒ Sawmill
- ☒ Forest


network

history
FORAC
FOREST TO CUSTOMER



„Supply plan“
~ weekly available
harvesting capacity

Outflow quantities

Information

Team : BOKU_SE21_test
Week : 1 of 5

Costs

Inventory cost : 0 \$
Backorder cost : 0 \$
Total cost : 0 \$
Average cost : 0 \$

Sawmill

Lumber Inventory : 12

Customer order : 4
Satisfaction : 100%

Quantity shipped : 4 (2 weeks)

Paper Inventory : 12

Customer order : 4
Satisfaction : 100%

Quantity shipped : 4 (2 weeks)

Purchase order

2 weeks
0
Submit

In transit from forest

2 weeks
8 (2 weeks)

Team chat room

Type your text here. Send

network
harvesting plan

FORAC
FOREST TO CUSTOMER

Split quantities into sawn timber and wood chips

Information
Team : boku2
Week : 1 of 5

Lumber Retailer

Costs
Inventory cost : 0 \$
Backorder cost : 0 \$
Total cost : 0 \$
Average cost : 0 \$

Customer order
 4
Satisfaction : 100%

Inventory and backorders : 12

Purchase order
2 weeks
0
Submit
Goods in transit
2 weeks

Team chat room
☐ Paper retailer
☐ Paper wholesaler
☐ Paper mill
☐ Lumber retailer
☐ Lumber wholesaler
☐ Sawmill
☐ Forest
Type your text here.
Send
 network
 history
FORAC
FOREST TO CUSTOMER



Performance Indicators
Team : boku_test
Week : 5 (game completed)
Total cost : 424 \$
Average cost : 85 \$
Satisfaction : 99 %

Value Creation Network

Costs Distribution

Lumber Retailer COMPUTER
 64 \$ 100 %
16 inventory

Lumber Wholesaler c
 34 \$ 100 %
2 inventory

Sawmill COMPUTER
 122 \$ 100 %
24 lumber inventory
13 chips inventory

Forest COMPUTER
 52 \$ 94 %
14 inventory

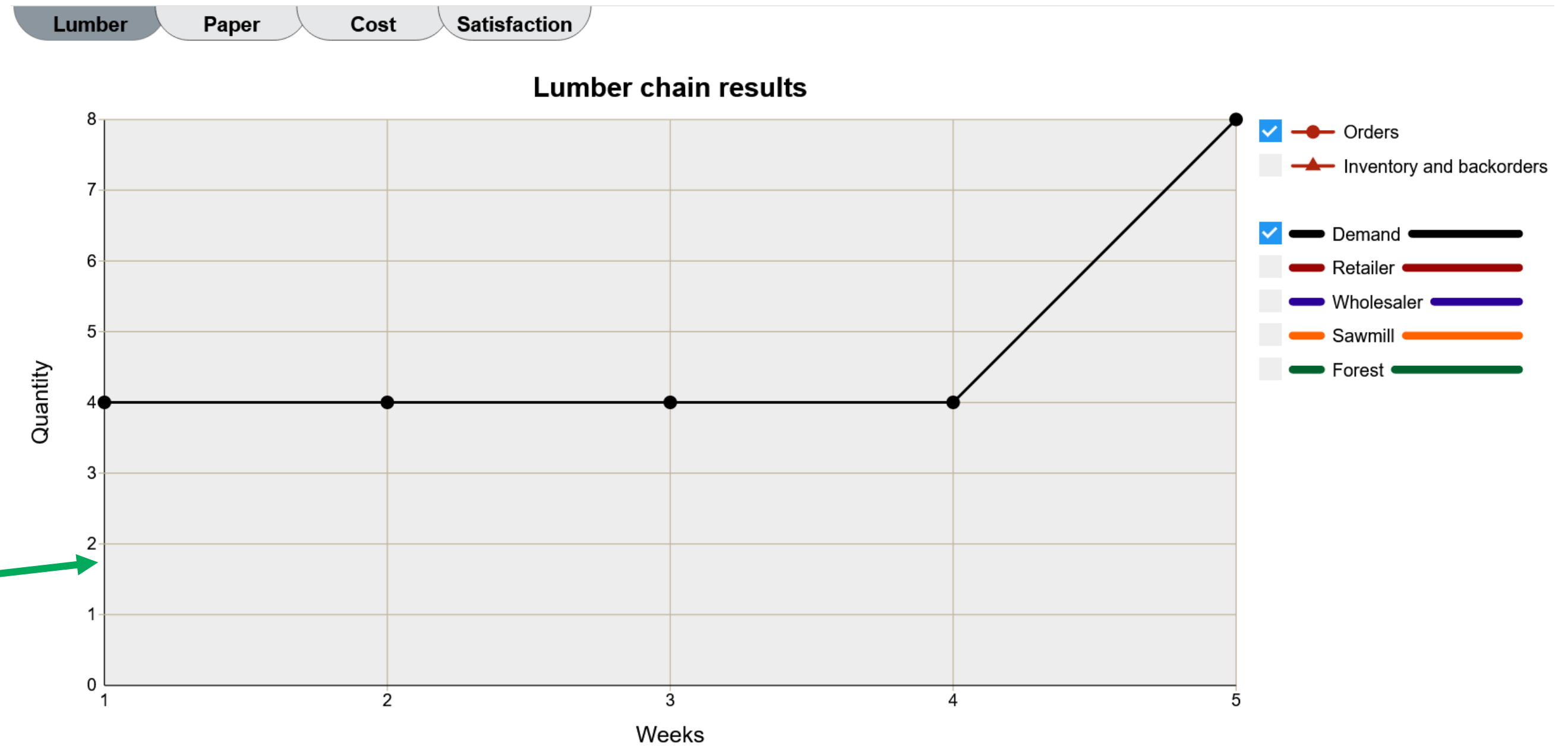
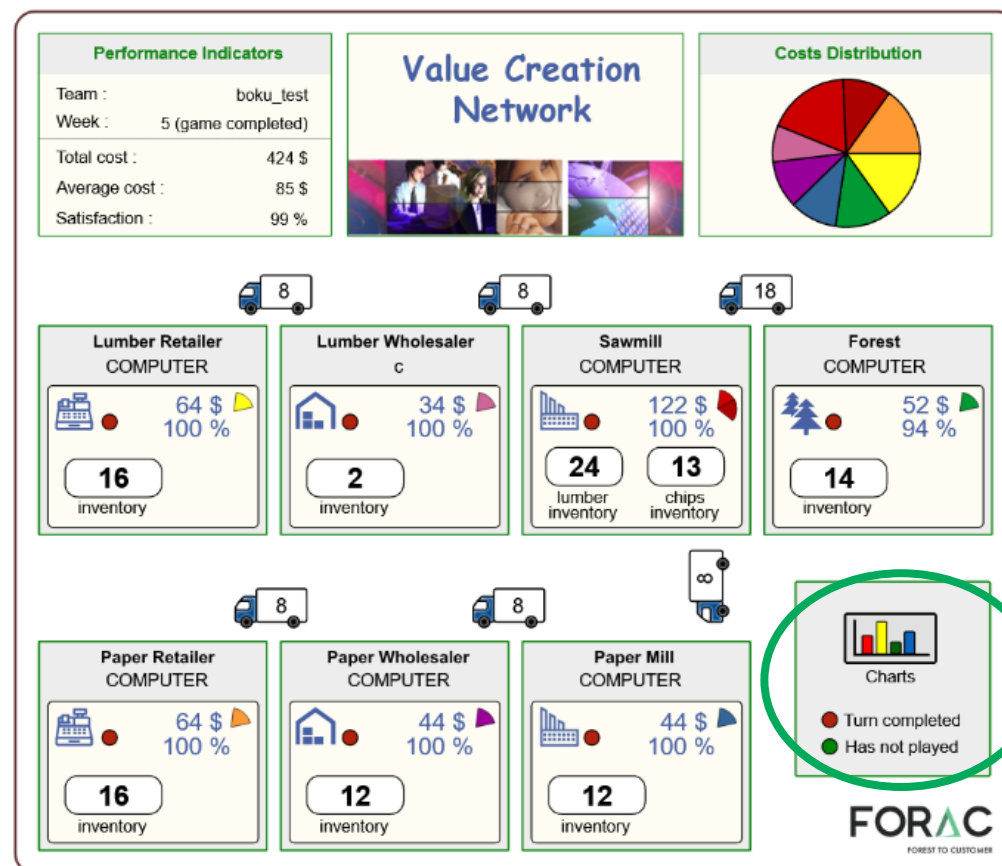
Paper Retailer COMPUTER
 64 \$ 100 %
16 inventory

Paper Wholesaler COMPUTER
 44 \$ 100 %
12 inventory

Paper Mill COMPUTER
 44 \$ 100 %
12 inventory

Charts

● Turn completed
● Has not played
FORAC
FOREST TO CUSTOMER

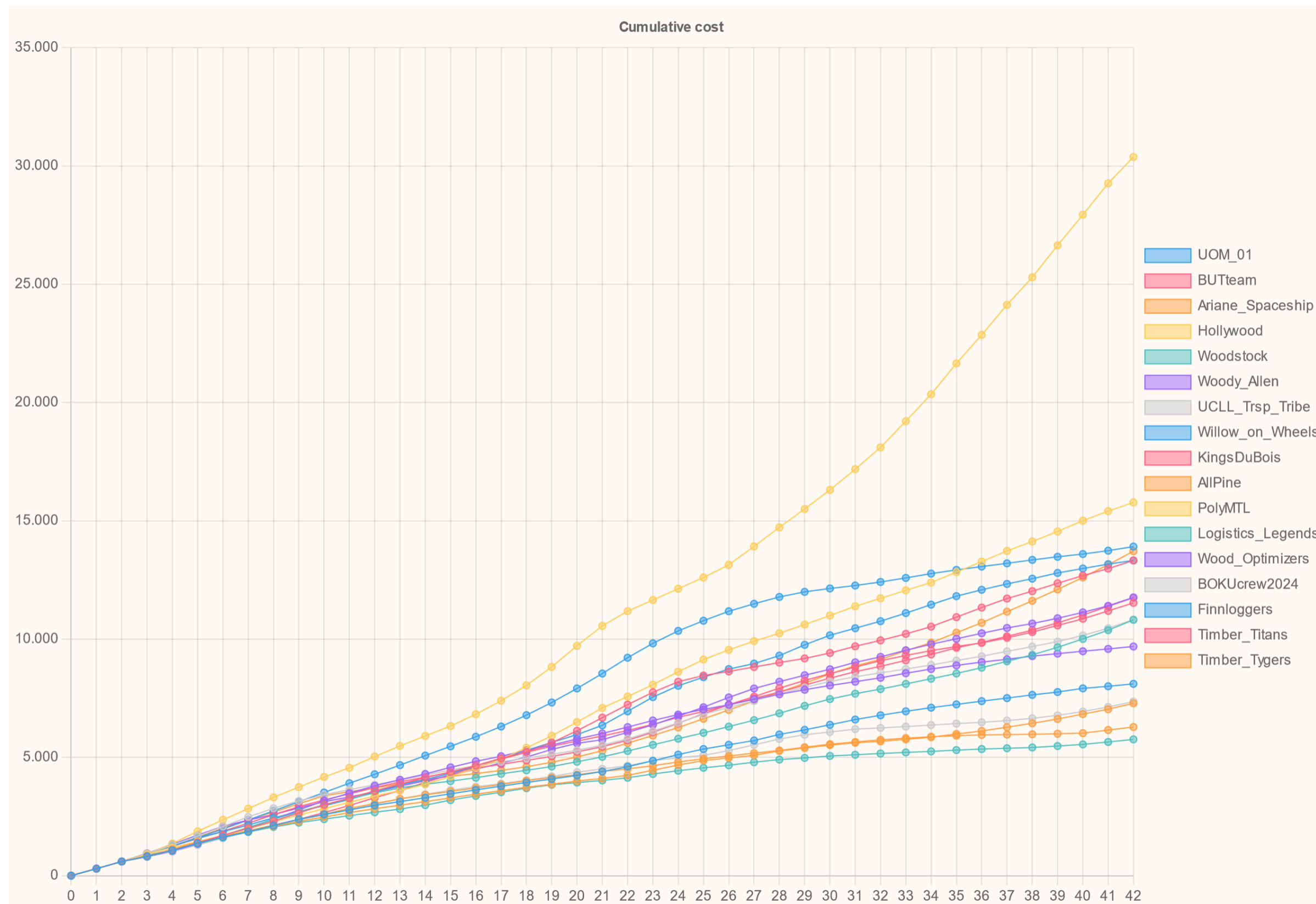


COMPETITION

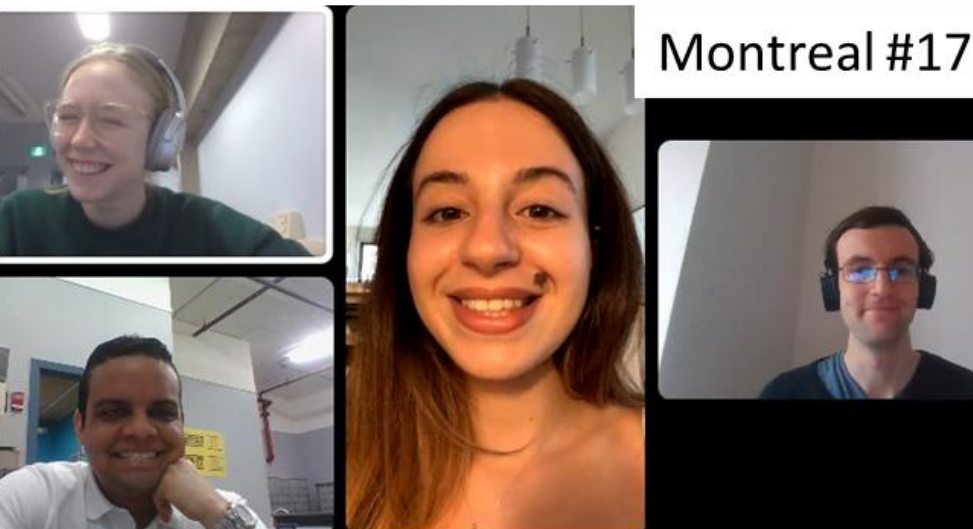
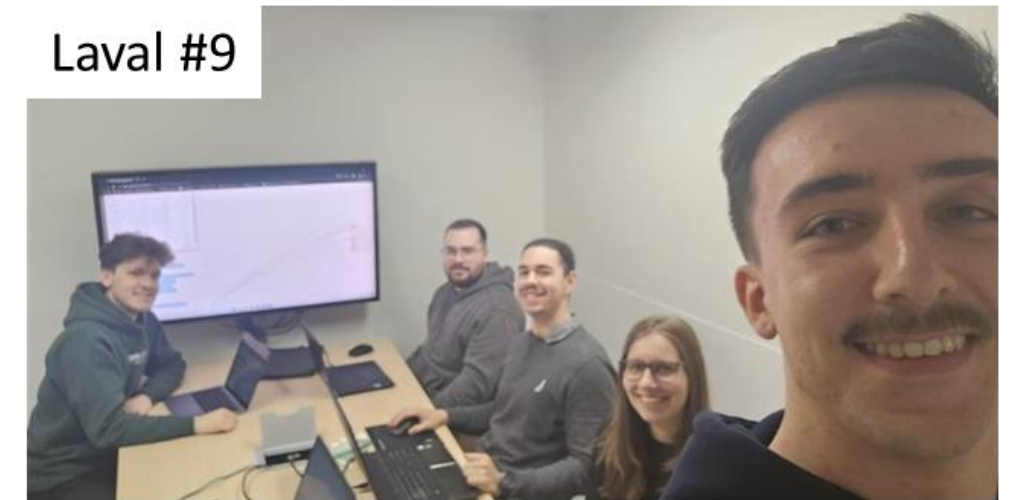
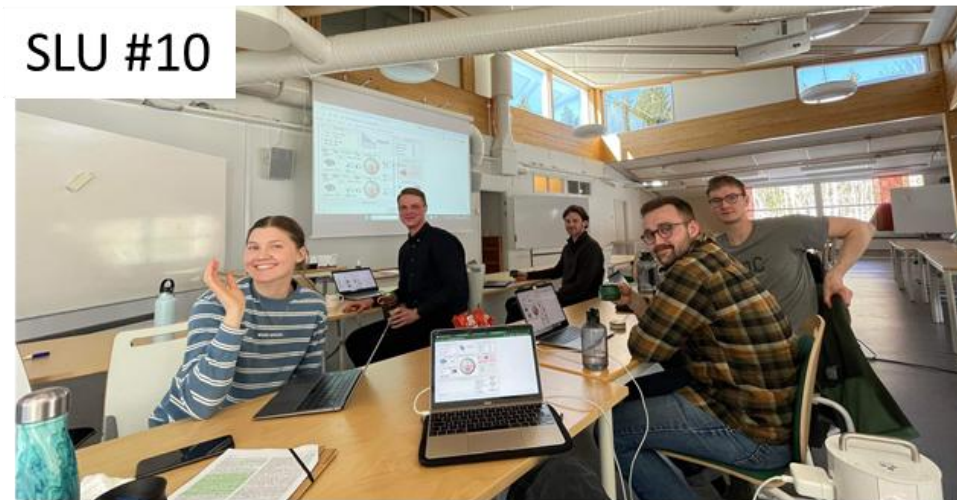
3 INTERNATIONAL COMPARISON

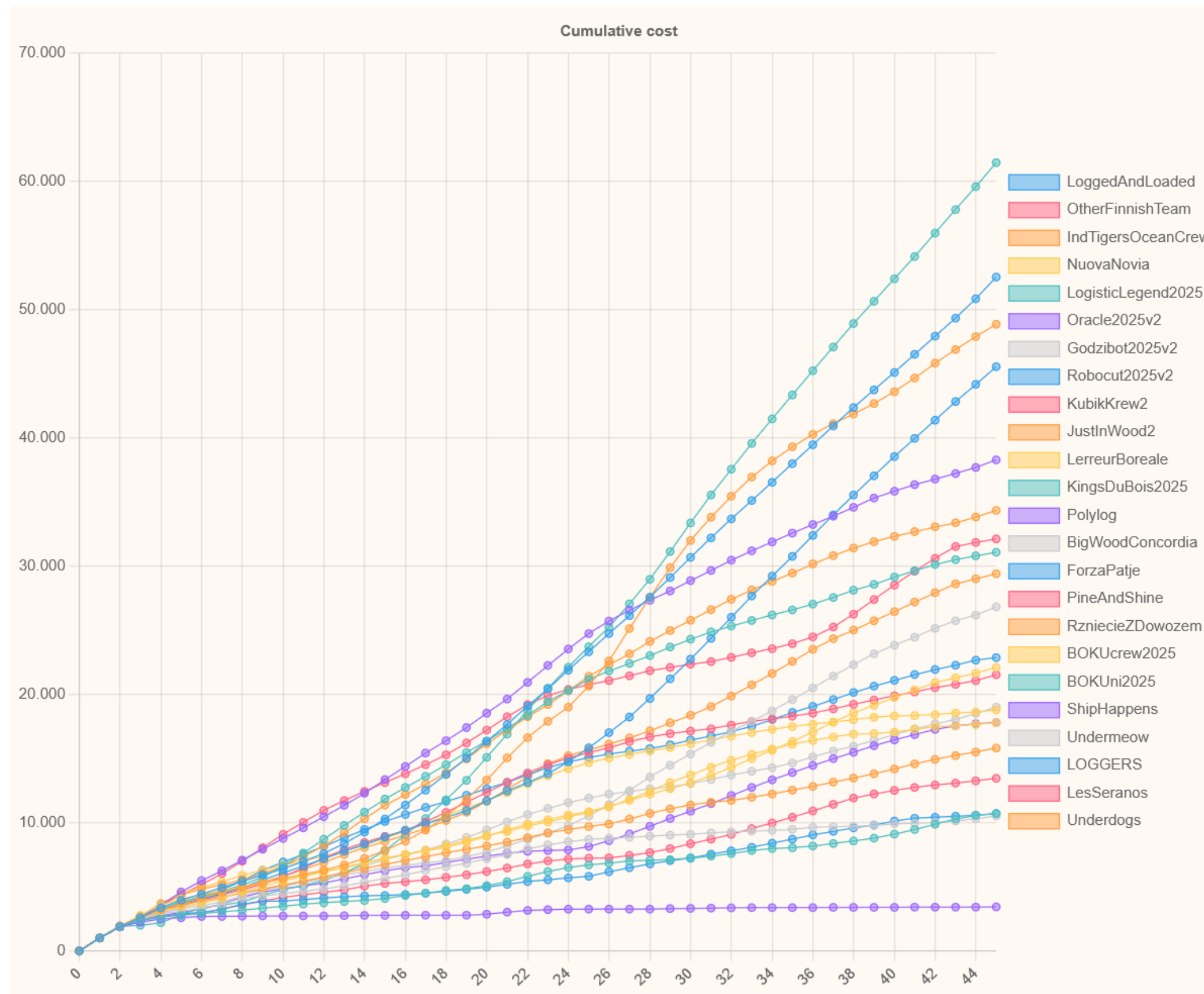
- Registration (email: philippe.marier@forac.ulaval.ca) until March
- Game time (<12 hours) on a given day (17th and 21st of April 2026)
- In the past there were teams from around the world: Canada, Sweden, USA, South Africa, Austria, France, Finland and United Arab Emirate, Sri Lanka, Belgium, ...
- A web site show teams progress in real time

3 LIVE ONLINE RANKING 2024

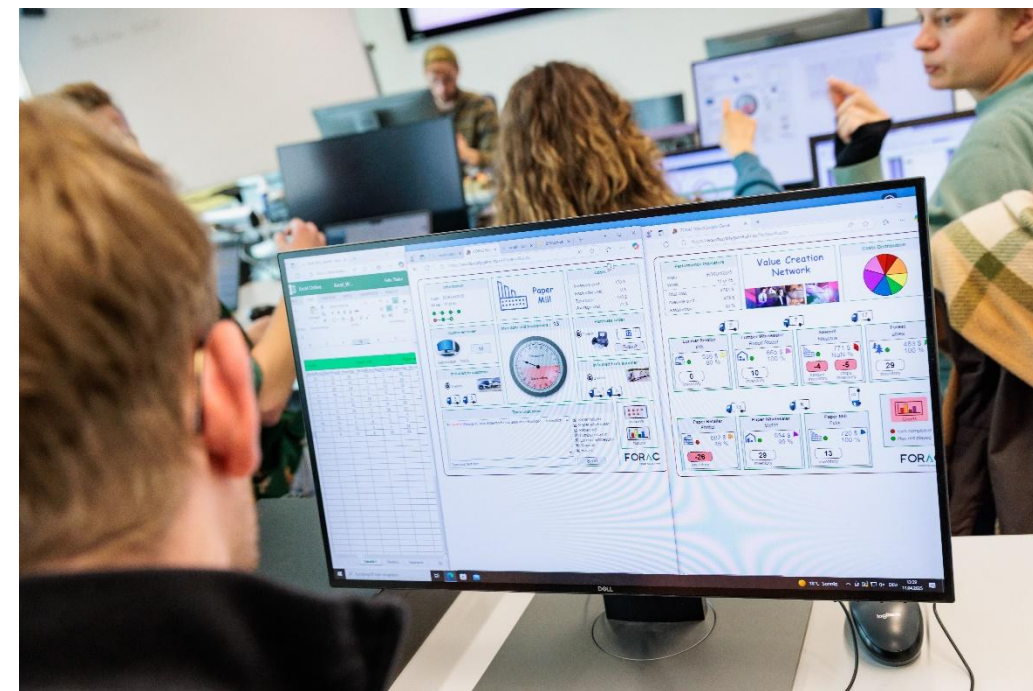
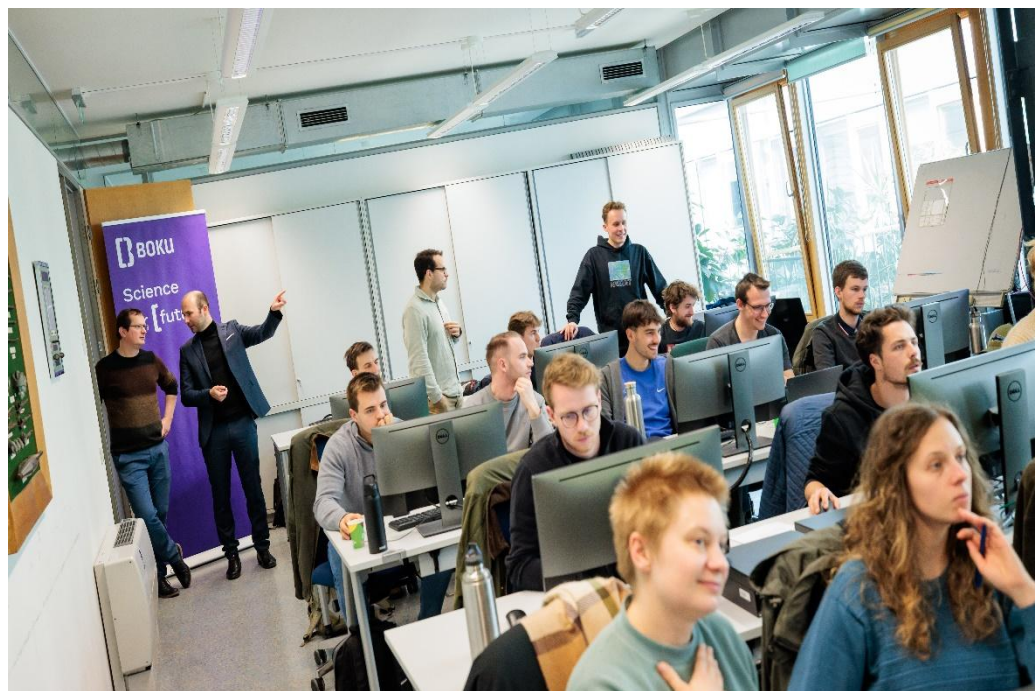


Rank	Country	University	Team Name	Tot. Cost
1		SFSU	Logistics_Legends	5760
2		KEDGE	Ariane_Spaceship	6283
3		Moncton	AllPine	7284
4		BOKU	BOKUcrew2024	7355
5		Moratuwa	UOM_01	8107
6		KEDGE	Woody_Allen	9688
7		KEDGE	Woodstock	10811
8		UCLL	UCLL_Trsp_Tribe	10827
9		Laval	KingsDuBois	11532
10		SLU	Timber_Titans	11747
11		Dalhousie	Wood_Optimizers	11763
12		TU Brno	BUTteam	13323
13		Dalhousie	Willow_on_Wheels	13324
14		SLU	Timber_Tygers	13717
15		Novia AUS	Finnloggers	13910
16		KEDGE	Hollywood	15778
17		Montreal	PolyMTL	30380





Team Name	University	Country	Rank	T
Logistic Legend 2025	SFSU	USA	1	
Kubik Krew	SLU	Sweden	2	
Just-in-WOOD	KEDGE	France	3	
L'erreur boréale	Moncton	Canada	4	
Ship Happens	KEDGE	France	5	
BOKU crew 2025	BOKU	Austria	6	
Undermeow	KEDGE	France	7	
Pine&Shine	BRNO University of Technology	Czech Republic	8	
Nuova Novia	Novia	Finland	9	
LOGGERS	KEDGE	France	10	
The Other Finnish Team	University of Helsinki	Finland	11	
Big Wood Concordia	Concordia	Canada	12	
Underdogs	KEDGE	France	13	
Kings Du Bois 2025	Université Laval	Canada	14	
Les Seranos	KEDGE	France	15	
Rznięcie z dowozem	Warsaw University of Life Sciences	Poland	16	
Polylog	Polytechnique Montréal	Canada	17	
Forza Patje	UCLL	Belgium	18	
Industrial Tiger's Ocean Crew	Dalhousie	Canada	19	
Logged and Loaded	University of Helsinki	Finland	20	
BOKUni 2025	BOKU	Austria	21	





TRAINING

4 TRAINING APPROACH AND MATERIAL

- Read scientific literature: <https://doi.org/10.1287/ited.2017.0174>,
[https://doi.org/ 10.1109/IEEM50564.2021.9672948](https://doi.org/10.1109/IEEM50564.2021.9672948)
- Import training scenarios from online toolkit:
<https://bokubox.boku.ac.at/#703cc09a3c65d90270c673ce29a798f2>
- Play at least 3 rounds of the game
- Develop decision support tools and strategies considering demand forecasting, inventory management, probability and lean management

4

CREATE A TRAININGS GAME IN 3 EASY STEPS

1

Wood supply game FORAC

Play game

Create a game

Game administrator



2

Wood supply game FORAC

new game

Team name:
GAME1

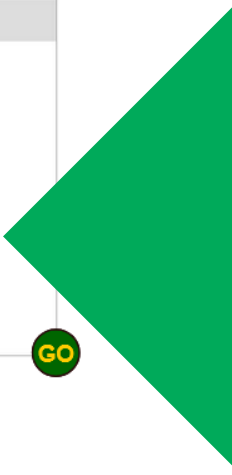
Password:
game1

☒ From game file

Number of weeks:
35

GO

Back to menu



BOKU_WSC1.xml
BOKU_WSC2.xml
BOKU_WSC3.xml

3

Administration

Information

Team name :
GAME1

Password :
game1

Number of weeks :
35

Options

☒ Use chat
☒ Network access
☐ Show end customer demand

Turn duration

☐ 1 min ☐ 1 min 30 ☒ 2 min ☐ No time limit

Number of weeks where delays are visible

☐ 1 ☒ 2 ☐ 3

Players

Game status

Week: 1
Status: In creation

Game chat room

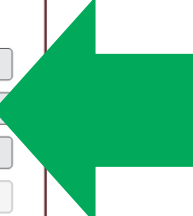
☒ Paper retailer
☒ Paper wholesaler
☒ Paper mill
☒ Lumber retailer
☒ Lumber wholesaler
☒ Sawmill
☒ Forest

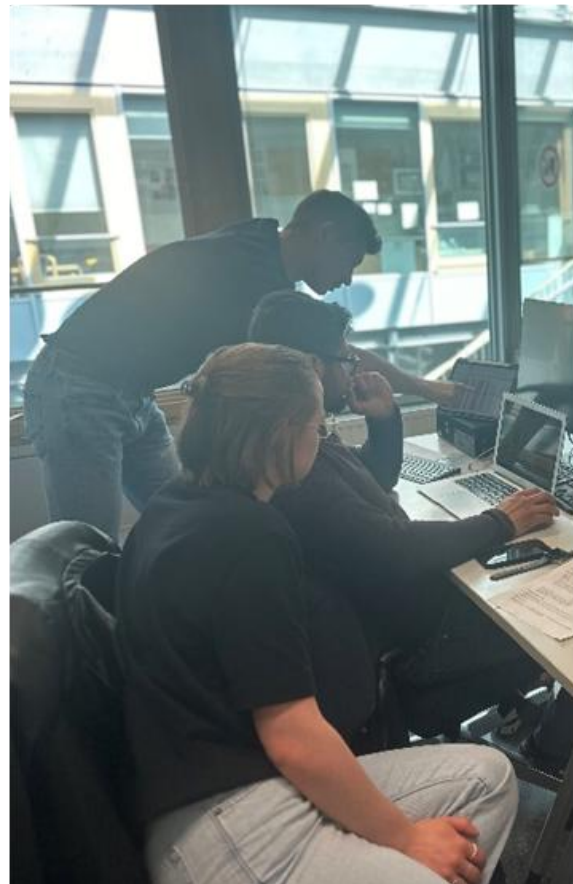
Type your text here. Send

Copy
Release
Delete
Complete
End
Parameters

orders
inventory
network
history

FORAC
FOREST TO CUSTOMER



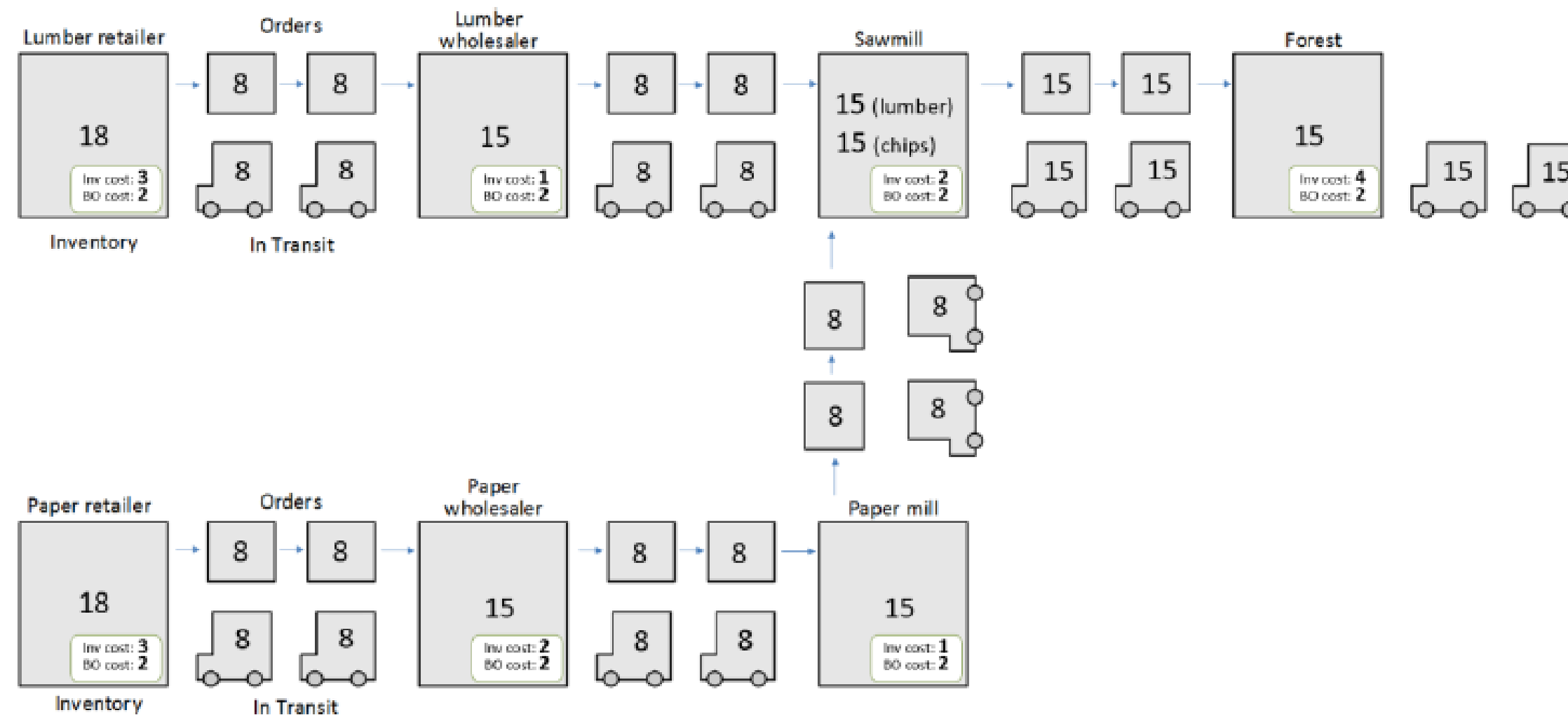


4

GAME DAY INSTRUCTIONS

The competition lasts 42 weeks. The figure provided shows starting inventories, orders, wood in transit, and inventory/backorder costs for each location.

- **Goal:** Win by having the lowest total network cost at the end of 42 weeks. Customer satisfaction is not considered.
- **Limited harvest:** Note that there's a maximum harvest amount of 1,000 units for the entire game.



QUESTIONS

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Philippe Marier
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[Merci BOKU]