



SKOGKURS

Oppleve dynamikken
Virkesforsyningsspillet

Dag Fjeld , Philippe Marier
22.10.2024



Virkeforsyningsspillet

Lagkonkurranse

Målet

- holde jevn forsyningstakt gjennom året
- holde rette lagernivåer

FORAC
FOREST TO CUSTOMER

FRANÇAIS

Wood Supply game

Introduction | How to play | Positions | Parameters

Play from Canadian server | Play from Asian server | Play from European server

Introduction

The forest products industry is one that includes all the mills that produce and transform wood and wood products. In this industry, the value creation cycle from the forest to the end customer is long and complex.

Each enterprise in the value creation network is an independent decision making unit and this can result in a lack of synchronization of operations. However, information is an important tool when managing the value creation network. Incomplete and incorrect information causes delivery problems (the right products available at the right place and at the right time) and customer satisfaction.

The Wood Supply Game simulates the operations in the forest product supply chain in order to demonstrate the dynamics at work in the value creation network and show the importance of information sharing between enterprises.

Each game is played with a maximum of 7 people, each responsible for the management of one enterprise in the network. Each round in the game represents one week. Each game is between 25 and 50 weeks long. The supply chain is represented by different downstream business units of the end customer. These units are: the forest, the sawmill, the paper mill, the distributors and the retailers. The divergent nature of the forest products industry supply chain is simulated by dividing the material produced at the sawmill into chips and lumber.

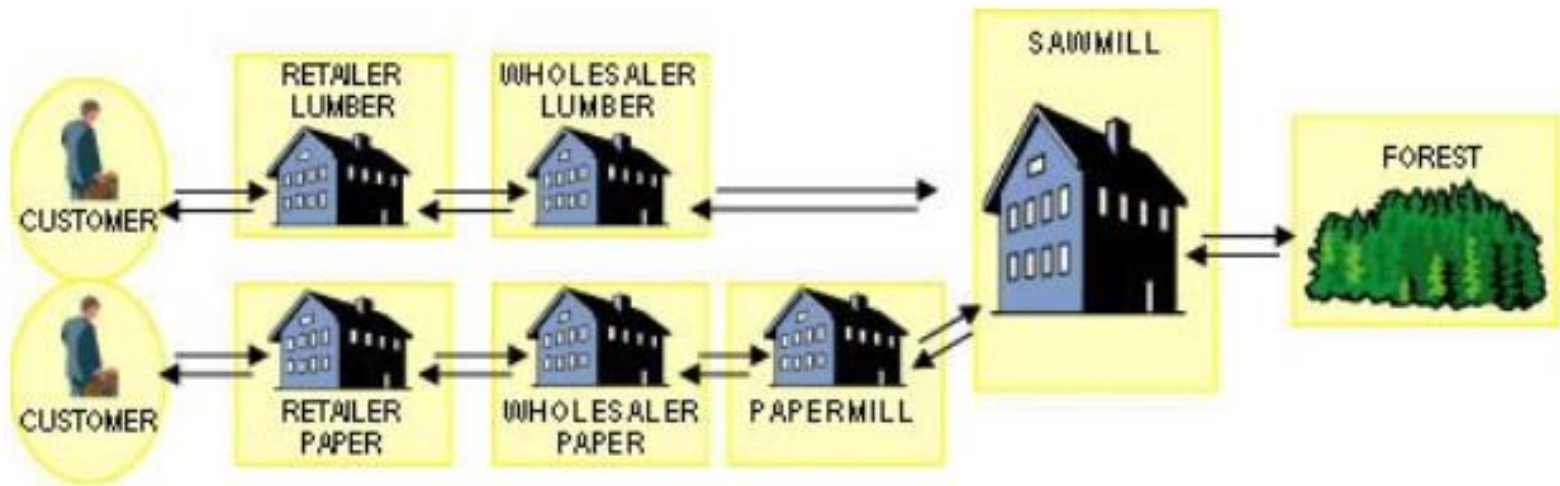
```
graph LR; Forest[FOREST] --> Sawmill[SAWMILL]; Sawmill --> WholesalerL[WHOLESALE LUMBER]; Sawmill --> WholesalerP[WHOLESALE PAPER]; WholesalerL --> RetailerL[RETAILER LUMBER]; WholesalerP --> RetailerP[RETAILER PAPER]; RetailerL --> CustomerL[CUSTOMER]; RetailerP --> CustomerP[CUSTOMER];
```

In this workshop, players must try to minimize inventory and backorder costs. Each business unit has a "warehouse" and each item in that inventory has a carrying cost. Each week managers of every enterprise must decide the amount of items to order from their supplier, in order to have a good level of customer service and minimize inventory costs.

Customer service levels are measured by the availability of products in the right place and at the right time. If products are not available when the client's order is received, a lost opportunity cost is calculated.

Forsyningskjede

Ukjent
etterspørsel



virkesforsyning

4-uker ledetid fra bestilling til leveranse

7 spillere per lag

		salg	distribusjon	bruk	skog
Lag 1	Saw				
	Paper				
Lag 2	Saw				
	Paper				
Lag 3	Saw				
	Paper				

OBS! - hvem er din leverandør?
- hvem er din kunde?

The screenshot shows a game interface for 'Lumber Wholesaler'. It features several panels:

- Informations:** Team: Patate, Week: 1 of 10, and a 'Players connecting' indicator.
- Costs:** A table showing 'Inventory cost: 0\$', 'Back order cost: 0\$', 'Total cost: 0\$', and 'Average cost: 0\$'.
- Customer order:** A panel with a satisfaction meter at 100% and a quantity of 4.
- Inventory and back orders:** A central gauge showing 'Inventory' (green) and 'Back orders' (red) levels, with a total of 12.
- Purchase order:** A panel with a quantity of 0 and a 'Submit' button.
- Shipment of goods (to customer):** A panel showing 'Goods in transit' with a quantity of 4.
- Reception of goods (from supplier):** A panel showing 'Goods in transit' with a quantity of 4.
- Bottom Panel:** A list of checked items: Forest, Paper mill, Saw mill, Lumber wholesaler, Lumber retailer, Paper wholesaler, and Paper retailer. A 'Send' button is at the bottom.

Game status

Costs

Kundens bestilling fra deg

Timer

bestille her 2 minutter

virke på vei

virke på vei

Chat (if available)

lager- 1 \$/lass/uke
restorder - 2 \$/lass/uke

Sagbruk

virke på vei

kundens bestilling fra deg

Information

Team: Patate
Week: 1 of 10

Players connecting

Saw mill

Costs

Inventory cost	0\$
Back order cost	0\$
Total cost	0\$
Average cost	0\$

Lumber

Customer order: 4
Satisfaction: 100%
Quantity shipped: 4

Paper

Customer order: 4
Satisfaction: 100%
Quantity shipped: 4

Inventory: 12

Inventory: 12

Purchase order

Submit

Reception of goods (from supplier)

Goods in transit

25 75

25 75

Send

- Forest
- Paper mill
- Saw mill
- Lumber wholesaler
- Lumber retailer
- Paper wholesaler
- Paper retailer

FORAC

bestille her
2 minutter

fordeling
sag/papir

Lager for
sag/papir

Skog

Kundens bestilling fra deg



Informations

Team: Patate
Week: 1 of 10

Players connecting

Forest

Costs

Inventory cost: 0\$
Back order cost: 0\$
Total cost: 0\$
Average cost: 0\$

Customer orders

4

Satisfaction: 100%

Shipment of goods (to customer)

Goods in transit

4 4

Inventory and back orders: 12

Inventory

Back orders

Forest operations

7

0

Submit

Supply plan

	1	5	9	11	21	31	41
1	5	9	12	22	32	42	
2	5	9	13	23	33	43	
3	5	9	14	24	34	44	
4	5	9	15	25	35	45	
5	5	9	16	26	36	46	
6	5	9	17	27	37	47	
7	5	9	18	28	38	48	
8	5	9	19	29	39	49	
9	5	9	20	30	40	50	

Maximum harvesting: 300
Cumulative harvesting: 0

Forest
 Paper mill
 Saw mill
 Lumber wholesaler
 Lumber retailer
 Paper wholesaler
 Paper retailer

Send

FORAC
FORWARD TO CUSTOMER

Forsyningsplan (bestillings-interval)

Oversikt – lager og kostnader

Lag: Vei1, Vei2, Vei3...

Google «FORAC Wood Supply Game»
velg «Canadian server»

velg «play game»



Wood supply game FORAC

Play game

Create a game

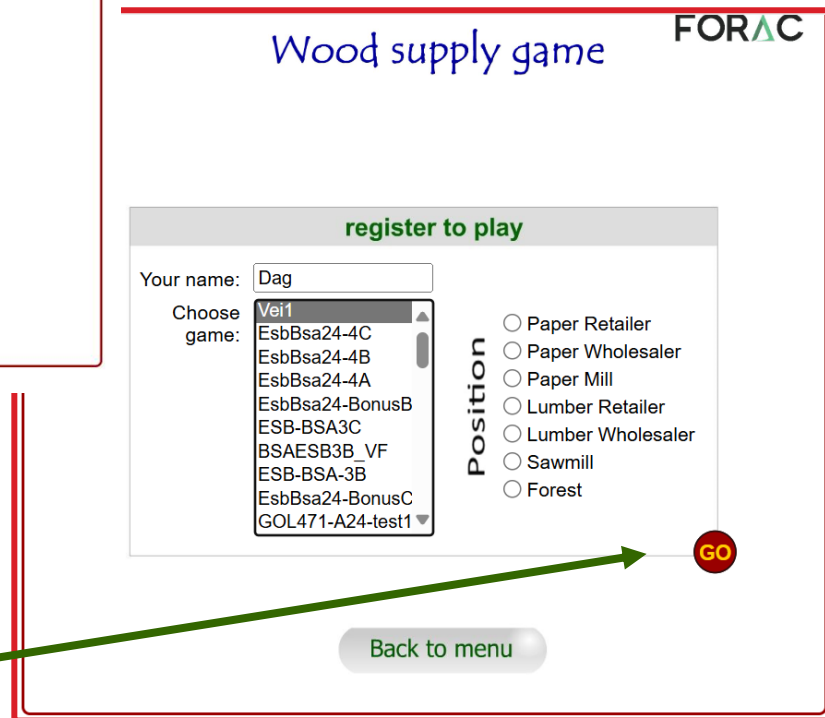
Game administrator

velg lag nr

skrive navn

velg rolle

«go»



Wood supply game FORAC

register to play

Your name:

Choose game:

- EsbBsa24-4C
- EsbBsa24-4B
- EsbBsa24-4A
- EsbBsa24-BonusB
- ESB-BSA3C
- BSAESB3B_VF
- ESB-BSA-3B
- EsbBsa24-BonusC
- GOL471-A24-test1

Position

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