

ERPsim

Leap Year Challenge

Round 3 → Round 4

Please Note

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ERPsim Leap Year (Logistics Sustainability) Challenge
Asynchronous | February 15, 2024

ERPsimLab
HEC MONTRÉAL

Serious games to learn enterprise
systems and business analytics

בְּרוּךְ הַבָּא
välkommen 欢迎 velkommen
chào mừng ようこそ hoşgeldiniz merħba
خوش آمدید
benvenuto willkommen 환영
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أهلاً بك Welcome bienvenu
fáilte welkom bine ati venit bienvenido
добро пожаловать स्वागत vitéjte
bem-vindo tervetuloa خوش آمدی
wamukelekile wëllkomm καλώς ήρθες

Schedule (Montréal Time)

Thursday, Feb 15, 2024

- 12:00 – Welcome
- 12:05 - Round 3 Review, FAQ
- 12:10 - Round 3 Run
- 12:20 - Round 3 Results
- 12:25 – Round 4 Information
- 12:30 – Q&A

Teams

AA - Tecnológico de Monterrey
BB - University of Nottingham
~~**CC** - Conestoga College~~
DD - Durham College
EE - The University of Texas at Dallas
FF - Neusoft Institute Guangdong
GG - International School of Business (UEH-ISB)
HH - Central Michigan University*
II - Penn State University
JJ - Beijing Jiaotong University
KK - JAMK - Jyväskylä University of Applied Sciences
LL - St Michael Learning Academy
MM - Missouri University of Science & Technology
NN - SENATI
PP - Purdue University
QQ - Seneca Polytechnic
RR - Metro State University

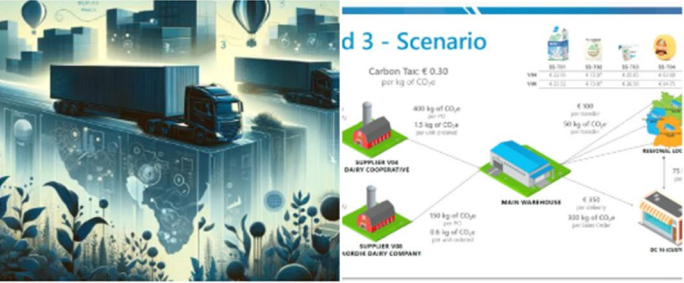

A2 - The University of Melbourne
B2 - University of the Cordilleras
C2 - Doon Business School, India
D2 - Duy Tan University
E2 - Excelsior Community College
F2 - Universidad Catolica Andres Bello
G2 - Purdue University Global
H2 - Hebei University of Science and Technology
I2 - Laval University
J2 - Xi'an Jiaotong-Liverpool University
K2 - East Carolina University
~~**L2** - UCLL~~
M2 - Morgan State University
N2 - Niagara College
P2 - Université de Sherbrooke
Q2 - SIIT Thammasat University*
R2 - California State University, Chico

<https://www.linkedin.com/company/erpsimlab>

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15h • Edited •

Reminder: ERPsim Leap Year Challenge - Round 3 is underway!

This round introduces a higher carbon tax. ...see more




Pierre-Maïorique Léger and 12 others

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ERPsim Leap Year Challenge: Advancing into Week 3

As we build on previous insights, this week comes with its own set of ch ...see more



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1w •

ERPsim Leap Year Sustainability Challenge - SOLD OUT!

We have reached capacity and the registration is now officially closed ! ...see more



ERPsim Challenge
Leap Year (Logistics Sustainability)
Student Friendly Competition

Feb 1-29, 2024 • Online • Asynchronous

SOLD OUT

Round 3 Review

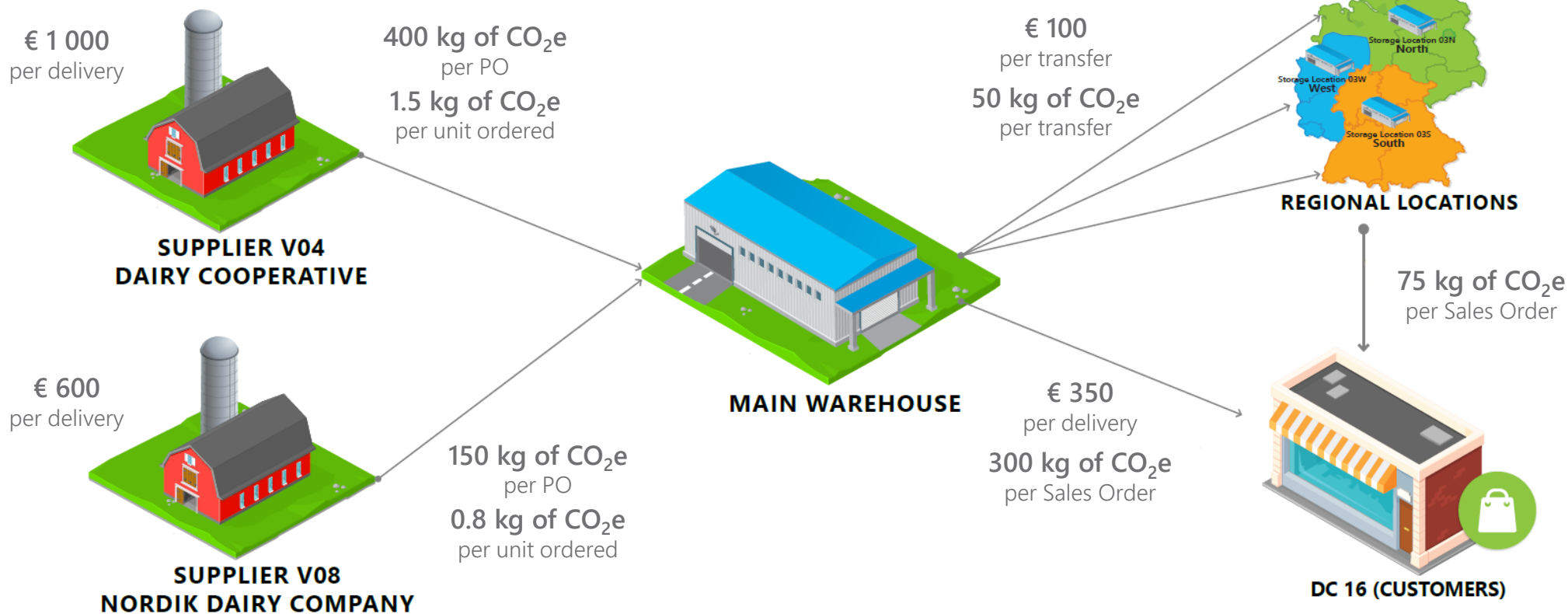
Round 3 - Facts and Brainteasers

- Carbon Tax Value: € **0.30**/kg of CO₂e
- Two suppliers (V04 & V08)
- Procurement is enabled.
- **Stock transfer is enabled**
 - Establish a plan to sell from regions
 - Check to continue selling from central
- **Sell from central, regions or both!**
- Choose your supplier!
- Check your pricing!
- Replenish your inventory!
- Some **reports** are available for a fee.
- **OData** (all) is enabled.

Round 3 - Scenario

Carbon Tax: € 0.30
per kg of CO₂e

	 \$\$-T01	 \$\$-T02	 \$\$-T03	 \$\$-T04	 \$\$-T05	 \$\$-T06
V04	€ 22.95	€ 72.07	€ 25.85	€ 82.68	€ 59.88	€ 43.15
V08	€ 23.52	€ 73.87	€ 26.50	€ 84.75	€ 61.38	€ 44.23



Round 3 - Think About It

- Should we sell from regions? Push or Pull? How often? Just continue selling from central? Perhaps both?
- Are our prices too high, too low, OK?
- What can we do to try and reduce our carbon footprint?
- What and how much to order to replenish? From which supplier?
- Shall we invest in the reports? What are the alternatives?
- What are my competitors doing?

Round 3 - FAQ

- OData (all)
- Stock transfers: simulator timing
- Selling from regions, central or both
- Choice of vendor
 - ZME12 → MD61 → MRP → ME59N
- Company Valuation Formula

Company_Valuation = {(((Current Profit – ZITM expenses) / Nb Round Played) *8) + ZITMexpenses } / (7% (market risk rate) + Company risk rate)

Round 3 Run

Round 3 Results

Round 2 – Results Top 10

Rank	Company Code	Financial Metrics							Sustainability Metrics		
		Company Valuation (EUR)	Credit Rating	Cumulative Net Income (EUR)	Round Net Income (EUR)	Total Sales (EUR)	Gross Margin	Net Margin	Total CO2e	CO2e per Unit Sold (kg/unit)	CO2e per Sales (kg/euro)
1	P2	618,441.82	AA	17,007.15	3,590.02	260,043.68	14.981%	6.540%	32,876.00	6.25	0.13
2	K2	522,500.73	AA	12,118.77	9,516.41	269,047.98	15.144%	4.504%	38,106.00	6.72	0.14
3	QQ	511,354.40	AAA+	12,783.86	3,386.71	365,012.36	12.297%	3.502%	48,840.00	5.46	0.13
4	BB	500,817.82	AA	11,822.49	5,081.65	201,709.04	15.752%	5.861%	29,560.00	6.75	0.15
5	AA	427,132.09	AA-	12,013.09	3,176.80	230,160.67	13.735%	5.219%	32,163.60	7.39	0.14
6	Q2	381,265.78	AA-	9,223.10	5,495.88	161,812.66	17.874%	5.700%	27,345.60	7.35	0.17
7	MM	272,283.38	AA-	7,657.97	3,208.24	181,884.05	15.289%	4.210%	30,270.00	7.10	0.17
8	DD	269,751.81	AA+	7,249.58	-506.68	392,779.66	11.049%	1.846%	57,770.60	5.84	0.15
9	GG	235,037.82	AA	5,713.54	3,668.36	240,925.80	10.019%	2.371%	31,800.00	6.12	0.13
10	PP	154,943.63	AA+	2,439.11	4,031.60	285,741.00	9.200%	0.854%	33,584.50	5.59	0.12

Round 3 – Results Top 10

Rank	Company Code	Financial Metrics							Sustainability Metrics		
		Company Valuation (EUR)	Credit Rating	Cumulative Net Income (EUR)	Round Net Income (EUR)	Total Sales (EUR)	Gross Margin	Net Margin	Total CO2e	CO2e per Unit Sold (kg/unit)	CO2e per Sales (kg/euro)
1	P2	868,873.60	AAA+	32,582.76	15,575.61	360,791.93	15.447%	9.031%	39,054.20	5.14	0.11
2	K2	761,552.37	AA+	28,825.08	16,706.31	376,815.78	15.724%	7.650%	45,316.80	5.77	0.12
3	AA	697,193.18	AA+	28,105.60	16,092.51	348,656.97	14.027%	8.061%	38,096.60	5.52	0.11
4	Q2	662,994.40	AAA+	23,612.29	14,389.19	329,040.74	13.528%	7.176%	35,843.10	4.78	0.11
5	DD	548,078.13	AAA+	20,552.93	13,303.35	518,679.34	11.607%	3.963%	68,650.00	5.18	0.13
6	GG	509,958.40	AAA+	18,498.44	12,784.90	351,359.63	11.775%	5.265%	40,835.00	4.96	0.12
7	MM	505,412.00	AAA+	18,952.95	11,294.98	322,843.25	12.484%	5.871%	37,195.00	4.73	0.12
8	BB	490,843.15	AA	18,622.28	6,799.79	240,619.04	16.446%	7.739%	34,485.00	6.58	0.14
9	R2	420,375.20	AAA+	13,764.07	14,765.38	430,983.70	9.723%	3.194%	47,338.50	5.16	0.11
10	QQ	416,206.88	AA+	16,778.34	3,994.48	389,475.83	12.858%	4.308%	53,436.00	5.56	0.14

Round 4 Information

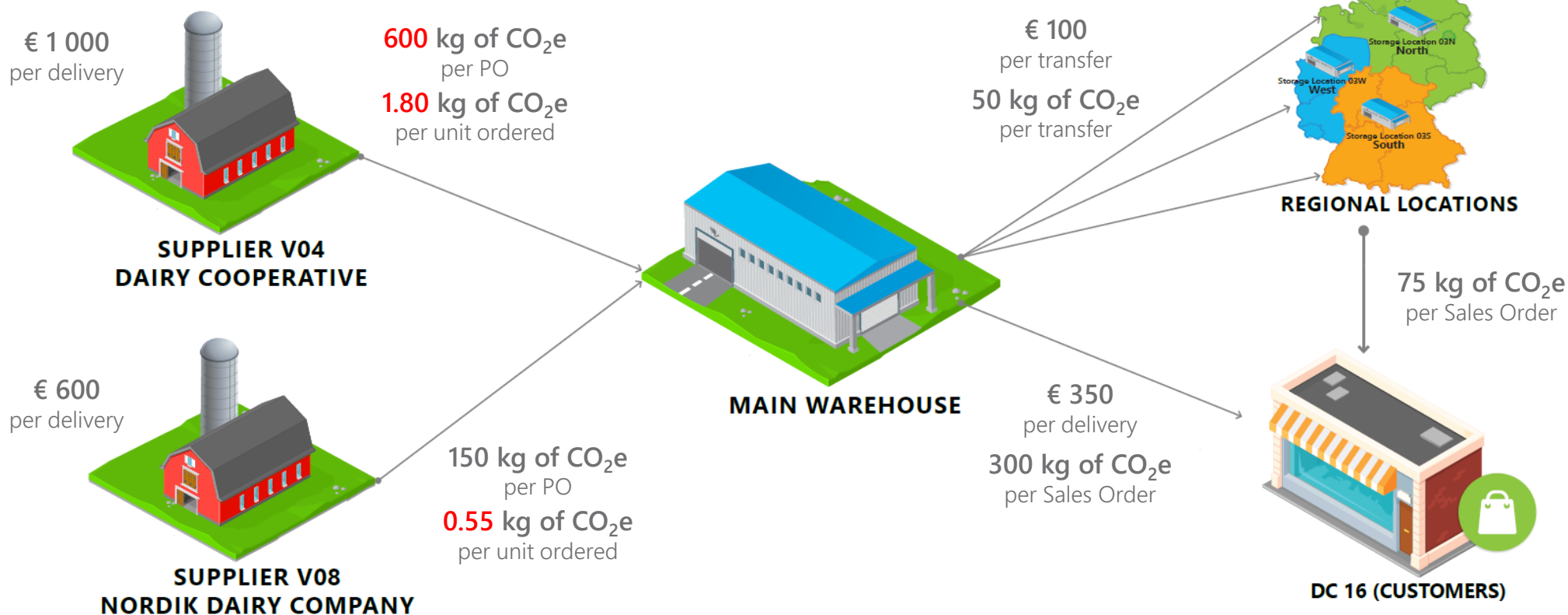
Round 4 - Facts and Brainteasers

- Carbon Tax Value: € 0.45/kg of CO₂e
- Two suppliers (V04 & V08)
 - V04: 1.50 → 1.80 kg CO₂e per unit
 - V04: 400 → 600 kg CO₂e per delivery
 - V04: € 1 000 per delivery
 - V08: 0.80 → 0.55 kg CO₂e per unit
 - V08: 150 kg CO₂e per delivery
 - V08: € 600 per delivery
- Procurement is enabled.
- Stock transfer is enabled, sell from central, regions or both!
- Choose your supplier!
- Check your pricing!
- Replenish your inventory!
- Some reports are available for a fee.
- OData (all) is enabled.

Round 4 - Scenario

Carbon Tax: € 0.45
per kg of CO₂e

	 \$\$-T01	 \$\$-T02	 \$\$-T03	 \$\$-T04	 \$\$-T05	 \$\$-T06
V04	€ 22.95	€ 72.07	€ 25.85	€ 82.68	€ 59.88	€ 43.15
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Round 4 - Considerations

- How the increased carbon tax impacts our business?
- How suppliers' carbon emissions changes impact our strategy?
- What can we do to alleviate the impact?
- What and how much to order? From which supplier?
- Should we sell from regions, central, or both?
- Push or pull our stock transfers? How often?
- Are our prices too high, too low, OK?
- What about our competitors?

Thank you!

Learn more about ERPsim

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