

ERPsim

Leap Year Challenge

Round 5 – Final

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ERPsim Leap Year (Logistics Sustainability) Challenge
Asynchronous | February 29, 2024

ERPsimLab
HEC MONTRÉAL

Serious games to learn enterprise
systems and business analytics

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Schedule (Montréal Time)

Thursday, Feb 29, 2024

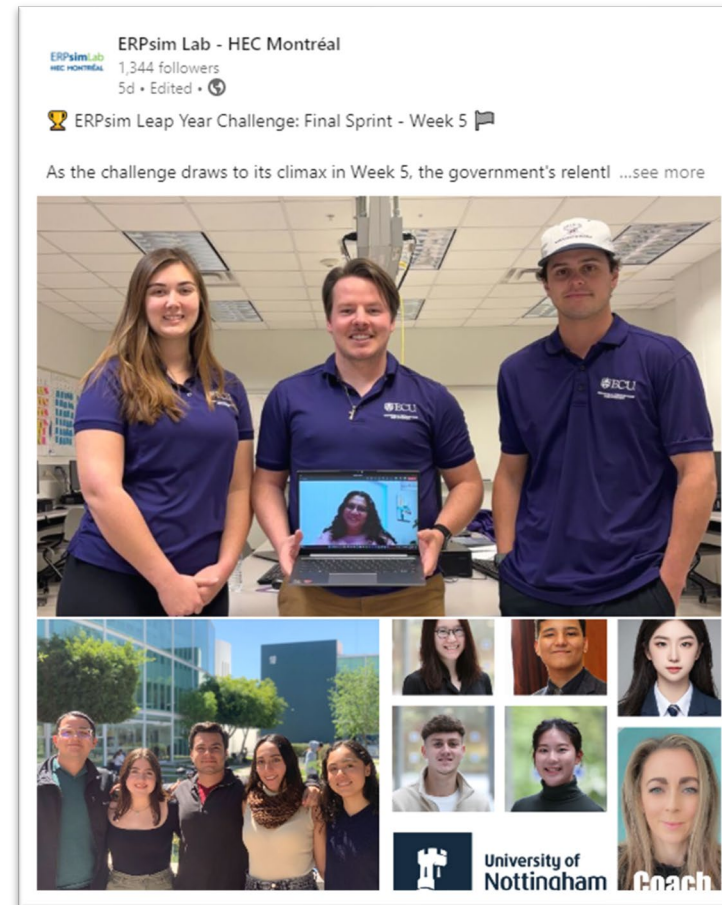
- 12:00 – Welcome
- 12:05 – Round 5 Review
- 12:10 – Round 5 Run
- 12:20 – Results
- 12:25 – Awards, interviews
- 12:45 – So long!

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>



Round 5 Review

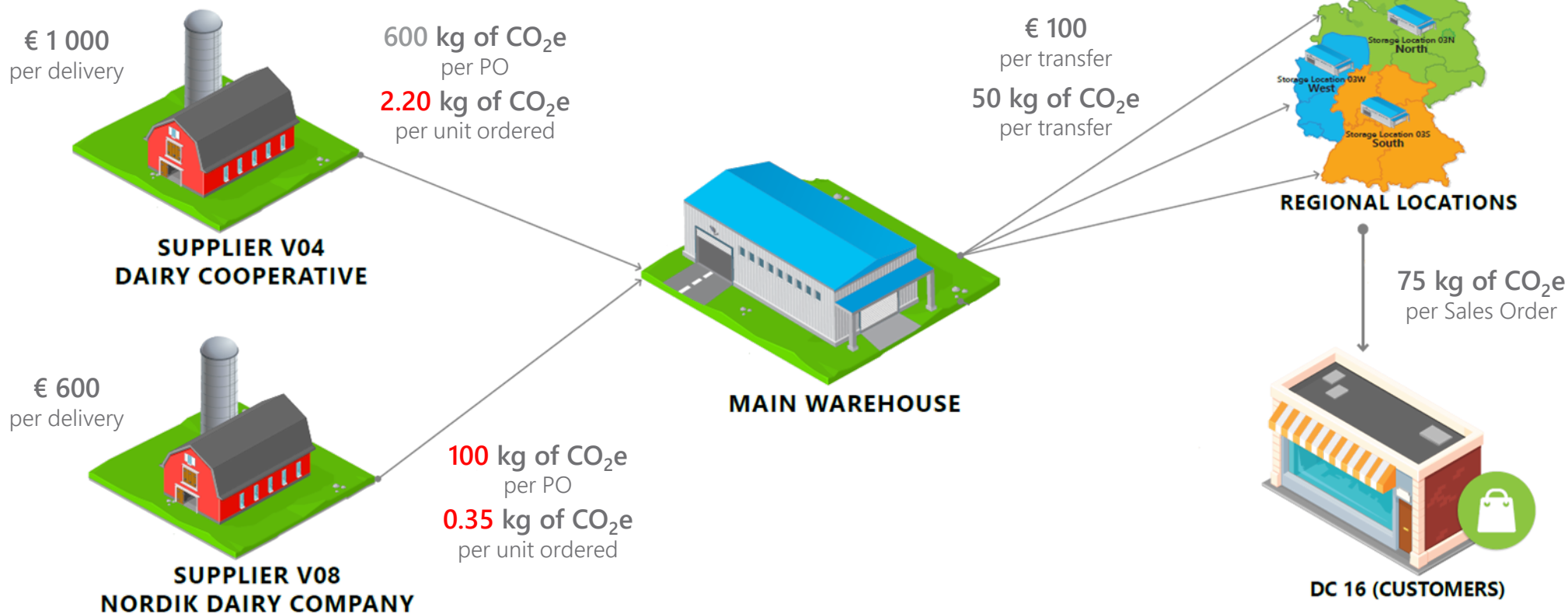
Round 5 - Facts and Brainteasers

- Carbon Tax Value: **€ 0.50/kg** of CO₂e
- Two suppliers (V04 & V08)
 - V04: 1.80 → **2.20 kg** CO₂e per unit
 - V04: € 600 CO₂e per delivery
 - V04: € 1 000 per delivery
 - V08: 0.55 → **0.35 kg** CO₂e per unit
 - V08: 150 → **100 kg** CO₂e per delivery
 - V08: € 600 per delivery
- Procurement is **enabled** with choice of vendor.
- Stock transfer is enabled but selling from **regions only!**
- Choose your **supplier!**
- Check your **pricing!**
- Replenish your **inventory!**
- Some **reports** are available **for a fee.**
- OData (all) is **enabled.**

Round 5 - Scenario

Carbon Tax: € 0.50
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 5 Run

Final Results

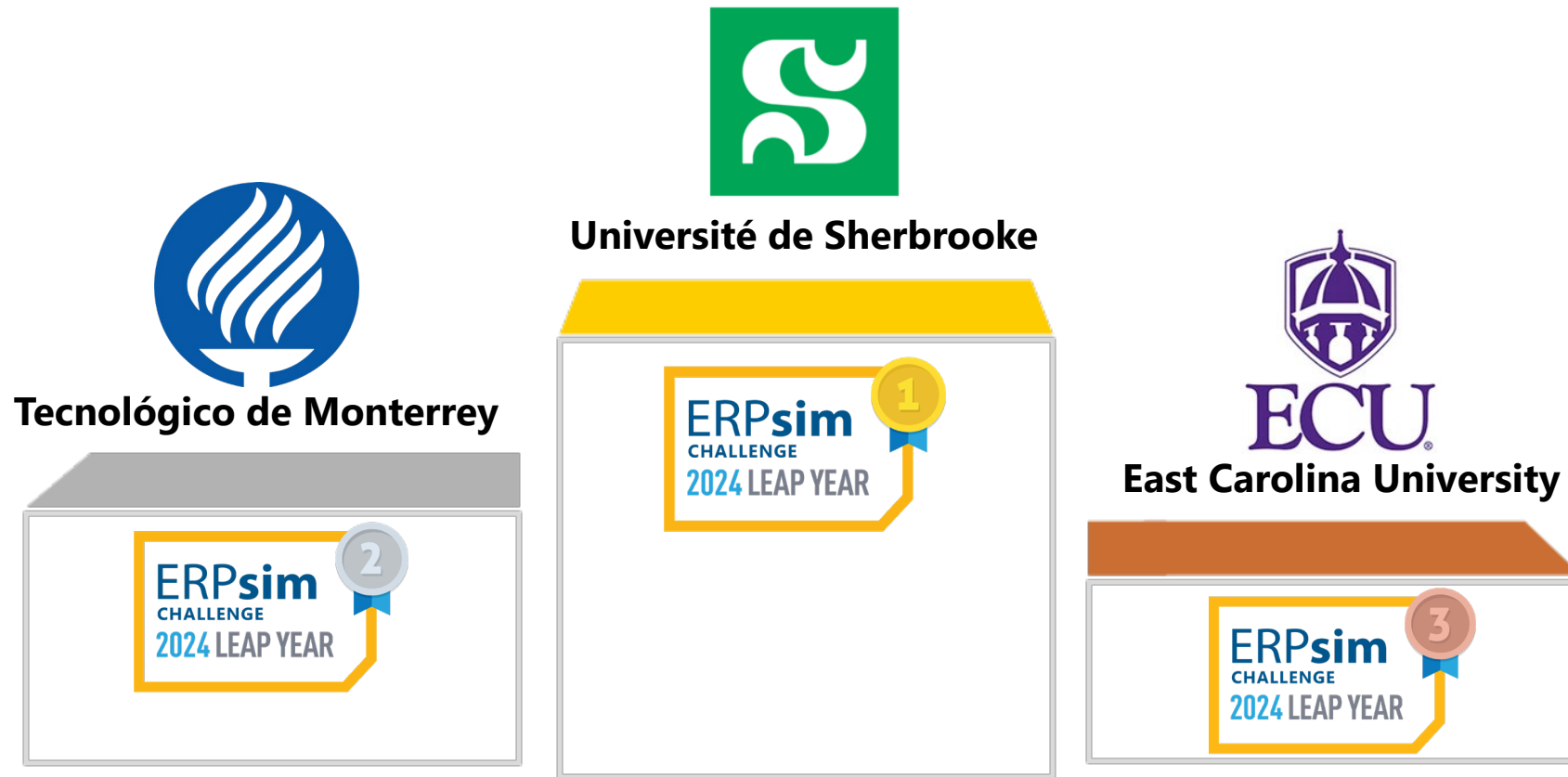
Round 4 – Results Top 10

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	K2	924,297.60	AAA+	44,614.88	15,989.80	493,842.58	15.499%	9.034%	51,074.05	5.09	0.10
2	P2	906,055.40	AAA+	45,302.77	12,720.01	462,489.03	15.060%	9.795%	45,866.70	4.63	0.10
3	AA	861,937.40	AAA+	43,096.87	14,991.27	483,237.07	13.533%	8.918%	44,836.00	4.79	0.09
4	DD	715,432.60	AAA+	35,771.63	15,218.70	625,930.99	12.289%	5.715%	74,671.35	4.71	0.12
5	Q2	714,534.80	AAA+	34,726.74	11,114.45	509,835.93	11.352%	6.811%	48,124.05	4.36	0.09
6	GG	673,581.60	AAA+	33,179.08	14,680.64	506,788.13	12.097%	6.547%	49,207.00	4.22	0.10
7	BB	640,552.60	AAA+	30,727.63	12,105.35	330,356.04	15.976%	9.301%	38,810.00	5.03	0.12
8	QQ	623,730.40	AAA+	31,186.52	14,408.18	492,362.65	13.280%	6.334%	57,686.00	4.89	0.12
9	MM	577,050.80	AAA+	28,852.54	9,899.59	472,446.44	10.880%	6.107%	49,646.40	4.20	0.11
10	D2	462,221.77	AA+	23,444.42	10,235.02	323,805.80	11.973%	7.240%	36,683.40	5.69	0.11

Round 5 – Final 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	965,775.52	AAA+	60,360.97	15,058.20	607,786.73	14.152%	9.931%	55,656.70	4.37	0.09
2	AA	923,833.12	AAA+	57,739.57	14,642.70	604,096.12	13.514%	9.558%	50,791.95	4.06	0.08
3	K2	897,516.48	AAA+	54,894.78	10,279.90	581,571.28	15.152%	9.439%	56,667.85	4.89	0.10
4	DD	728,303.52	AAA+	45,518.97	9,747.34	683,839.69	12.849%	6.656%	78,846.85	4.59	0.12
5	Q2	707,892.80	AAA+	43,493.30	8,766.56	598,738.43	11.665%	7.264%	55,945.55	4.36	0.09
6	QQ	662,506.88	AAA+	41,406.68	10,220.16	565,249.29	13.606%	7.325%	62,595.90	4.57	0.11
7	GG	655,056.00	AAA+	40,566.00	7,386.92	567,281.48	12.320%	7.151%	53,032.00	4.17	0.09
8	D2	624,227.36	AAA+	37,964.21	14,519.79	471,955.59	11.630%	8.044%	47,012.10	4.65	0.10
9	BB	603,736.16	AAA+	36,758.51	6,030.88	377,608.74	15.839%	9.735%	42,085.00	4.81	0.11
10	R2	592,138.56	AAA+	35,808.66	14,809.00	707,282.83	9.989%	5.063%	70,445.85	4.69	0.10

ERPsim Leap Year Challenge 2024



Thank you!

Learn more about ERPsim

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ERPsim Leap Year (Logistics Sustainability) Challenge
Round 5 - Final Results

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	965,775.52	AAA+	60,360.97	15,058.20	607,786.73	14.152%	9.931%	55,656.70	4.37	0.09
2	AA	923,833.12	AAA+	57,739.57	14,642.70	604,096.12	13.514%	9.558%	50,791.95	4.06	0.08
3	K2	897,516.48	AAA+	54,894.78	10,279.90	581,571.28	15.152%	9.439%	56,667.85	4.89	0.10
4	DD	728,303.52	AAA+	45,518.97	9,747.34	683,839.69	12.849%	6.656%	78,846.85	4.59	0.12
5	Q2	707,892.80	AAA+	43,493.30	8,766.56	598,738.43	11.665%	7.264%	55,945.55	4.36	0.09
6	QQ	662,506.88	AAA+	41,406.68	10,220.16	565,249.29	13.606%	7.325%	62,595.90	4.57	0.11
7	GG	655,056.00	AAA+	40,566.00	7,386.92	567,281.48	12.320%	7.151%	53,032.00	4.17	0.09
8	D2	624,227.36	AAA+	37,964.21	14,519.79	471,955.59	11.630%	8.044%	47,012.10	4.65	0.10
9	BB	603,736.16	AAA+	36,758.51	6,030.88	377,608.74	15.839%	9.735%	42,085.00	4.81	0.11
10	R2	592,138.56	AAA+	35,808.66	14,809.00	707,282.83	9.989%	5.063%	70,445.85	4.69	0.10
11	MM	534,980.96	AAA+	33,436.31	4,583.77	535,691.46	10.694%	6.242%	54,937.40	4.04	0.10
12	HH	278,260.96	AAA+	16,191.31	7,288.55	753,263.16	9.657%	2.149%	88,414.00	5.12	0.12
13	NN	93,783.52	AAA+	5,111.47	18,103.24	858,049.75	8.766%	0.596%	115,353.30	5.41	0.13
14	I2	14,063.36	AA-	613.83	-4,701.97	479,261.17	10.319%	0.128%	77,874.50	8.80	0.16
15	C2	-19,198.86	AA-	-1,349.92	-2,370.00	37,557.00	19.437%	-3.594%	23,794.00	28.46	0.63
16	LL	-33,344.00	AA-	-2,344.50	-1,000.00	140,244.00	6.742%	-1.672%	22,100.00	7.37	0.16
17	M2	-33,984.00	AA-	-2,389.50	-1,000.00	140,244.00	6.710%	-1.704%	22,100.00	7.37	0.16
18	G2	-44,792.89	AA-	-3,149.50	-1,000.00	140,244.00	6.667%	-2.246%	22,700.00	7.57	0.16
19	CC	-45,006.22	AA-	-3,164.50	-1,000.00	140,244.00	6.657%	-2.256%	22,700.00	7.57	0.16
20	OO	-45,219.56	AA-	-3,179.50	-1,000.00	140,244.00	6.646%	-2.267%	22,700.00	7.57	0.16
21	O2	-45,966.22	AA-	-4,019.50	-1,000.00	140,244.00	6.796%	-2.866%	21,800.00	7.27	0.16
22	A2	-50,624.00	AA-	-3,559.50	-1,000.00	140,244.00	6.625%	-2.538%	23,000.00	7.67	0.16
23	RR	-51,690.67	AA-	-3,634.50	-1,000.00	140,244.00	6.571%	-2.592%	23,000.00	7.67	0.16
24	F2	-56,455.11	AA-	-3,969.50	-1,000.00	140,244.00	6.582%	-2.830%	23,300.00	7.77	0.17
25	II	-56,881.78	AA-	-3,999.50	-1,000.00	140,244.00	6.560%	-2.852%	23,300.00	7.77	0.17
26	E2	-57,308.44	AA-	-4,029.50	-1,000.00	140,244.00	6.539%	-2.873%	23,300.00	7.77	0.17
27	N2	-62,499.56	AA-	-4,394.50	-1,000.00	140,244.00	6.528%	-3.133%	23,600.00	7.87	0.17
28	JJ	-62,712.89	AA-	-4,409.50	-1,000.00	140,244.00	6.518%	-3.144%	23,600.00	7.87	0.17
29	L2	-63,139.56	AA-	-4,439.50	-1,000.00	140,244.00	6.496%	-3.166%	23,600.00	7.87	0.17
30	FF	-68,544.00	AA-	-4,819.50	-1,000.00	140,244.00	6.475%	-3.437%	23,900.00	7.97	0.17
31	EE	-68,757.33	AA-	-4,834.50	-1,000.00	140,244.00	6.464%	-3.447%	23,900.00	7.97	0.17
32	J2	-214,285.12	AAA+	-14,592.82	553.64	805,129.34	5.872%	-1.812%	93,679.85	5.27	0.12
33	B2	-232,936.16	AAA+	-15,383.51	-2,309.31	711,405.52	2.982%	-2.162%	67,453.10	4.52	0.09
34	PP	-709,755.59	AA-	-50,767.19	-29,995.27	285,741.00	8.033%	-17.767%	89,497.90	14.89	0.31
35	KK	-2,262,170.74	AA-	-160,258.88	-87,578.67	908,233.45	7.572%	-17.645%	285,237.95	14.21	0.31
36	H2	-26,628,362.71	A-	-2,039,934.02	-467,802.70	2,600,169.66	-28.429%	-78.454%	1,262,295.50	21.77	0.49