Simulation Results

Report

Simulation

Simulation Duration

|  |  |
| --- | --- |
| **Start** | 1/1/2022 09:00:00 |
| **End** | 12/31/2022 18:00:00 |
| **Duration** | 364d.09:00:00 |

Simulation Processes

| # | Name | Avg Duration | Avg Cost,TEUR |
| --- | --- | --- | --- |
| 1. | A4 Schedule and perform project |  | 1,347.38 |
| 2. | A6 Manage procurement |  | 296.19 |
| 3. | RP1 Register and sign contract | 2d.04:24:56 | 0.17 |

1. A4 Schedule and perform project

Resources Used

Work Resources

| # | Name | Shift | Hourly Rate | Avg Usage Time | Avg Cost, TEUR |
| --- | --- | --- | --- | --- | --- |
| 1. | Accountant | Shift 1 | 100.0000 | EUR | title | title |
| 2. | Computer | 24-hour shift | 40.0000 | EUR | title | title |
| 3. | Customer | Shift 1 | 0.0000 | EUR | title | title |
| 4. | Design Engineer | Shift 1 | 100.0000 | EUR | title | title |
| 5. | Director | Shift 1 | 500.0000 | EUR | title | title |
| 6. | Director of Operations | Shift 1 | 300.0000 | EUR | title | title |
| 7. | Head of Engineering Department | Shift 1 | 200.0000 | EUR | title | title |
| 8. | Head of Installation Site | Shift 1 | 200.0000 | EUR | title | title |
| 9. | Installer | Shift 1 | 50.0000 | EUR | title | title |
| 10. | Instrument | 24-hour shift | 35.0000 | EUR | title | title |
| 11. | Lawyer | Shift 1 | 130.0000 | EUR | title | title |
| 12. | Leading Engineer | Shift 1 | 120.0000 | EUR | title | title |
| 13. | Project Manager | Shift 1 | 180.0000 | EUR | title | title |
| 14. | Regulatory bodies | Shift 1 | 0.0000 | EUR | title | title |
| 15. | Subcontractor | Shift 1 | 170.0000 | EUR | title | title |
| 16. | Technician | Shift 1 | 100.0000 | EUR | title | title |
|  | **Sum** | **1161.65** |

Material Resources

| # | Name | Price | Avg Quantity Consumed | Avg Cost, TEUR |
| --- | --- | --- | --- | --- |
| 1. | A4 sheet | 0.3000 | EUR | 2234 | items | title |
| 2. | Mail services | 50.0000 | EUR | 19 | times | title |
| 3. | Material assets | 10.0000 | TEUR | 18 | sets | title |
| 4. | Printer (printing of one sheet) | 2.0000 | EUR | 2056 | items | title |
|  | **Sum** | **185.73** |

Fixed Costs

| # | Name | Cost Rate | Avg Sum, TEUR |
| --- | --- | --- | --- |
| 1. | Freight transport | 45,000.0000 | EUR Per month | title |
|  | **Sum** | **440.18**  |

Avg Times and Costs of Subprocesses

| # | Process | Processing Time  | Wait Time | Time in Queue | Time of Waiting for Material Resources | Full Time | Cost,TEUR |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | A4.1 Plan projects | 1d.14:30:00 | 0:00:00 | 0:00:00 | 0:00:00 | 1d.14:30:00 | 7.05 |
| 2. | A4.2 Implement project | 8d.10:54:24 | 6d.06:26:00 | 94d.11:02:48 | 0:00:00 | 109d.04:23:12 | 63.89 |
| 3. | A4.3 Complete project and analyze project results | 1d.08:13:20 | 1d.08:12:46 | 43d.01:35:33 | 0:00:00 | 45d.18:01:40 | 9.96 |

Avg Time and Cost of Subprocesses’ Instances Within Process Instance

| # | Process | Frequency Within Parent Process | Processing Time | Wait Time | Time in Queue | Time of Waiting for Material Resources | Full Time  | Cost,TEUR |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | A4.1 Plan projects | 0.0526 | 2:01:34 | 0:00:00 | 0:00:00 | 0:00:00 | 2:01:34 | 0.37 |
| 2. | A4.2 Implement project | 0.9474 | 8d.00:13:38 | 5d.22:30:56 | 89d.11:43:42 | 0:00:00 | 103d.10:28:17 | 60.53 |
| 3. | A4.3 Complete project and analyze project results | 0.9474 | 1d.06:31:34 | 1d.06:31:03 | 40d.19:11:34 | 0:00:00 | 43d.08:14:12 | 9.44 |
|  | **Sum** |  | **9d.08:46:47** | **7d.05:02:00** | **130d.06:55:17** | **0:00:00** | **146d.20:44:05** | **70.34** |

Process Instances

|  |  |
| --- | --- |
| **Number Created** | 47 |
| **Number Completed** | 19 |
| **Number Incompleted** | 28 |
| **Created Instances per Day (Avg)** | 0.129 |
| **Completed Instances per Day (Avg)** | 0.052 |

1. A6 Manage procurement

Resources Used

Work Resources

| # | Name | Shift | Hourly Rate | Avg Usage Time | Avg Cost, TEUR |
| --- | --- | --- | --- | --- | --- |
| 1. | Accountant | Shift 1 | 100.0000 | EUR | title | title |
| 2. | Computer | 24-hour shift | 40.0000 | EUR | title | title |
| 3. | Director | Shift 1 | 500.0000 | EUR | title | title |
| 4. | Director of Operations | Shift 1 | 300.0000 | EUR | title | title |
| 5. | Head of Procurement Department | Shift 1 | 200.0000 | EUR | title | title |
| 6. | Lawyer | Shift 1 | 130.0000 | EUR | title | title |
| 7. | Leading Engineer | Shift 1 | 120.0000 | EUR | title | title |
| 8. | Loader | 24-hour shift | 20.0000 | EUR | title | title |
| 9. | Procurement Manager | Shift 1 | 75.0000 | EUR | title | title |
| 10. | Supplier | Shift 1 | 0.0000 | EUR | title | title |
| 11. | Warehouseman | Shift 1 | 30.0000 | EUR | title | title |
|  | **Sum** | **295.79** |

Material Resources

| # | Name | Price | Avg Quantity Consumed | Avg Cost, TEUR |
| --- | --- | --- | --- | --- |
| 1. | A4 sheet | 0.3000 | EUR | 171 | items | title |
| 2. | Printer (printing of one sheet) | 2.0000 | EUR | 175 | items | title |
|  | **Sum** | **0.4** |

Fixed Costs

| # | Name | Cost Rate | Avg Sum, TEUR |
| --- | --- | --- | --- |
| 1. | Online supplier database | 5,000.0000 | EUR Per month | title |
| 2. | Freight transport | 45,000.0000 | EUR Per month | title |
|  | **Sum** | **159.82**  |

Products

| # | Name | Avg Quantity Produced |
| --- | --- | --- |
| 1. | Instrument | 232 | items |
| 2. | Material assets | 44 | sets |

Avg Times and Costs of Subprocesses

| # | Process | Processing Time  | Wait Time | Time in Queue | Time of Waiting for Material Resources | Full Time | Cost,TEUR |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | A6.1 Develop procurement plan | 4:00:00 | 0:00:00 | 0:00:00 | 0:00:00 | 4:00:00 | 0.98 |
| 2. | A6.2 Find and select suppliers | 11:33:41 | 6:50:13 | 2d.07:30:13 | 0:00:00 | 3d.01:54:07 | 5.37 |
| 3. | A6.3 Conclude supply contract | 6:04:32 | 6:13:38 | 3d.05:54:19 | 0:00:00 | 3d.18:12:30 | 1.05 |
| 4. | A6.4 Purchase materials and instruments | 15:45:27 | 22:13:38 | 1d.02:43:24 | 0:00:00 | 2d.16:42:30 | 0.24 |
| 5. | A6.5 Store and distribute material assets | 1d.03:40:00 | 0:00:00 | 0:00:00 | 0:00:00 | 1d.03:40:00 | 0.83 |

Avg Time and Cost of Subprocesses’ Instances Within Process Instance

| # | Process | Frequency Within Parent Process | Processing Time | Wait Time | Time in Queue | Time of Waiting for Material Resources | Full Time  | Cost,TEUR |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | A6.1 Develop procurement plan | 0.0222 | 0:05:20 | 0:00:00 | 0:00:00 | 0:00:00 | 0:05:20 | 0.02 |
| 2. | A6.2 Find and select suppliers | 0.9778 | 11:18:16 | 6:41:06 | 2d.06:16:12 | 0:00:00 | 3d.00:15:35 | 5.25 |
| 3. | A6.3 Conclude supply contract | 0.9778 | 5:56:26 | 6:05:20 | 3d.04:10:26 | 0:00:00 | 3d.16:12:13 | 1.02 |
| 4. | A6.4 Purchase materials and instruments | 0.9778 | 15:24:26 | 21:44:00 | 1d.02:07:46 | 0:00:00 | 2d.15:16:13 | 0.23 |
| 5. | A6.5 Store and distribute material assets | 0.0222 | 0:36:53 | 0:00:00 | 0:00:00 | 0:00:00 | 0:36:53 | 0.02 |
|  | **Sum** |  | **1d.09:21:23** | **1d.10:30:26** | **6d.12:34:26** | **0:00:00** | **9d.08:26:15** | **6.55** |

Process Instances

|  |  |
| --- | --- |
| **Number Created** | 47 |
| **Number Completed** | 45 |
| **Number Incompleted** | 2 |
| **Created Instances per Day (Avg)** | 0.129 |
| **Completed Instances per Day (Avg)** | 0.123 |

1. RP1 Register and sign contract

Resources Used

Work Resources

| # | Name | Shift | Hourly Rate | Avg Usage Time | Avg Cost, TEUR |
| --- | --- | --- | --- | --- | --- |
| 1. | Computer | 24-hour shift | 40.0000 | EUR | title | title |
| 2. | Director | Shift 1 | 500.0000 | EUR | title | title |
| 3. | Lawyer | Shift 1 | 130.0000 | EUR | title | title |
|  | **Sum** | **0.17** |

Avg Times and Costs of Subprocesses

| # | Process | Processing Time  | Wait Time | Time in Queue | Time of Waiting for Material Resources | Full Time | Cost,TEUR |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | RP1.1 Register contract | 0:20:00 | 1:12:05 | 10:52:35 | 0:00:00 | 12:24:41 | 0.06 |
| 2. | RP1.2 Allocate contract a registration number | 0:10:00 | 0:00:00 | 0:00:00 | 0:00:00 | 0:10:00 | 0.01 |
| 3. | RP1.3 Submit contract to Director for signing | 0:10:00 | 1:02:05 | 14:18:31 | 0:00:00 | 15:30:37 | 0.02 |
| 4. | RP1.4 Sign contract | 0:10:00 | 4:07:39 | 20:01:58 | 0:00:00 | 1d.00:19:37 | 0.08 |

Avg Time and Cost of Subprocesses’ Instances Within Process Instance

| # | Process | Frequency Within Parent Process | Processing Time | Wait Time | Time in Queue | Time of Waiting for Material Resources | Full Time  | Cost,TEUR |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | RP1.1 Register contract | 1 | 0:20:00 | 1:12:05 | 10:52:35 | 0:00:00 | 12:24:41 | 0.06 |
| 2. | RP1.2 Allocate contract a registration number | 1 | 0:10:00 | 0:00:00 | 0:00:00 | 0:00:00 | 0:10:00 | 0.01 |
| 3. | RP1.3 Submit contract to Director for signing | 1 | 0:10:00 | 1:02:05 | 14:18:31 | 0:00:00 | 15:30:37 | 0.02 |
| 4. | RP1.4 Sign contract | 1 | 0:10:00 | 4:07:39 | 20:01:58 | 0:00:00 | 1d.00:19:37 | 0.08 |
|  | **Sum** |  | **0:50:00** | **6:21:51** | **1d.21:13:05** | **0:00:00** | **2d.04:24:56** | **0.17** |

Process Instances

|  |  |
| --- | --- |
| **Number Created** | 82 |
| **Number Completed** | 81 |
| **Number Incompleted** | 1 |
| **Created Instances per Day (Avg)** | 0.224 |
| **Completed Instances per Day (Avg)** | 0.222 |