Course

CU70102

**The transport specialist**

**Integrated project assignment**

**Study program:**

**Logistics Engineering**



**CU05417**

**COURSE DESCRIPTION FOR STUDENTS**

**2018 – 2019**

[](http://www.google.nl/imgres?imgurl=http://www.zzpnetwerknederland.nl/Uploaded_files/Zelf/branche/branche_logistics.jpg&imgrefurl=http://www.zzpnetwerknederland.nl/branche/LogistiekTransport/&h=1200&w=1500&tbnid=3Dxl3ljomRx5FM:&zoom=1&docid=soeE_eT-lXBG9M&ei=OV4NVPf9DIOsOJ2GgIgG&tbm=isch&ved=0CEYQMygQMBA&iact=rc&uact=3&dur=1380&page=2&start=9&ndsp=19)

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**Vlissingen, 2018**



*Course:*

**The transport specialist**

**Integrated project assignment**

Author: F. Koevoets

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## Introduction

[](http://www.google.nl/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&docid=sqobpw5uuyMdQM&tbnid=F0yb0P1vuqDKUM:&ved=0CAUQjRw&url=http://www.sincerus.nl/informatiebeveiliging-voor-de-logistiek/&ei=z18NVNqtD8aMO5rAgMAM&bvm=bv.74649129,d.ZWU&psig=AFQjCNEE-02HRn-jepJd26kZr7ktqg_1Aw&ust=1410248633528570)Higher vocational graduates end up with numerous organizations. Once you obtained your Logistics Engineering Bachelor degree you might end up working in the physical distribution, transport and storage, planning, communication and many other supporting disciplines. What does Logistics entail exactly and how can logistical companies operate in a strongly competitive environment? One will occupy himself with inventory control, production of a product, purchasing, a sales department, a position within transportation, reverse logistics or as a supply chain manager.

## 1.1 General goals of the integrated project assignment

The integrated project assignment ‘The Transport specialist’ provides insight in the history of logistics, the logistical concept, purchase logistics, production logistics, distribution logistics, reverse logistics, LEAN and improvement methodologies, information technology and logistics and supply chain management.

Furthermore, this assignment provides insight into the importance of transport within the supply chain. You learn to recognize and solve transport problems for an existing steel concern. Choices between transport modalities and the comparison of these modalities play an important role by means of analyzes and considerations.

[](http://www.google.nl/imgres?imgurl=http://www.evo.nl/site/A9FB62399F620358C125788400505282/$File/Spoedcursus-inleiding-in-logistiek-full.jpg&imgrefurl=http://www.evo.nl/site/opleiding-logistiek&h=280&w=940&tbnid=kpiJCBVa3dTSHM:&zoom=1&docid=cA3GjpUW9B7WiM&ei=OV4NVPf9DIOsOJ2GgIgG&tbm=isch&ved=0CIIBEDMoQjBC&iact=rc&uact=3&dur=2655&page=4&start=48&ndsp=20)During this integral project assignment you will learn how products are produced, what exactly is needed for this and how a product is ultimately delivered to the customer. The different markets that influence this are discussed here. You do this by drawing up transport plans and creating a set-up for the use of transport equipment for the supply and removal of materials. You will also gain more insight into the influence of changing goods flows and problems of international transport. This should take into account the interests of other departments, such as production and customers, which you encounter within the supply chain.

Finally, you also learn how to draw meaningful conclusions about the success of a company from financial data. You use this information to make plans for your 'own' transport company. In doing so, you estimate which (financial) impact has a major task on the performance of the company. That way you become familiar with balance sheet and income statement. Make your profit or lead your loss?

# 2. Structure of the integral assignment

The 'Logistics Engineering' department, within the HZ or Applied Sciences, prepares students for various logistics functions. The logistics function of 'transport specialist' is focused on during this quarter.

The course 'The Transport specialist, CU70102', is the first integrated project assignment within the logistics program and is supported by the courses 'Introduction to international logistics, CU70104', 'Intermodal Transport, CU70106' and 'Logistics Financial Management 1, CU70108' .

You work together in the same group as is the case in the supporting courses. These groups are formed during the introduction week.

The main question of the integrated assignment is:

What are the most important conditions for a transport company that works for ArcelorMittal?

This main question will be answered by means of the following sub-questions:

## 2.1 Sub-questions concerning intermodal transport

1. Make an overview of four end products that ArcelorMittal produces. This overview must fully describe:

* the name or description or the external appearance of these products;
* the properties and characteristics of these products;
* the dimensions of these products;
* weight (tons) per cubic meter (M3) and
* the number of cubic meters per ton.

It should also be indicated how these products should be handled during transport. Consider the safety measures, protection and the physical conditions (requirements) under which they may be transported.

Finally, the market prices for steel per ton or per m3 must be indicated.

This all together is the Product specification or Safety data Sheet for the product.

1. In Excel, create a goods flow analysis and a suitable distribution pattern for ArcelorMittal using all transport modalities (see appendix).

## 2.2 Sub-questions concerning introduction to international logistics

1. Establish the customer service policy for ArcelorMittal.
2. Find out how the steel market is currently being built up. Who are the big players in the market? What is the supply chain of steel in general? What are the raw materials? Where do these come from? Is there scarcity? What are the latest developments? What are the threats? Do not forget to mention the sources according to APA style.
3. Indicate which are the characteristics of the customer segments that are important to ArcelorMittal, which may be important for determining the customer service policy. Does the end product go directly to the end consumer or is it used by wholesalers and / or retailers (final processors).
4. Which customer service requirements are the most important for ArcelorMittal? Make a distinction between the customer segments found (see b above). Also explain why these customer service requirements are important.
5. Which KPIs should ArcelorMittal use to follow the customer service performance?
6. In the ArcelorMittal process, where is the Customer Order Decoupling Point (CODP)?
7. What is the best customer order decoupling point for ArcelorMittal? Can there be more points? Explain this and clearly explain your motives for the choice(s) made.

If you do not decide for one unambiguous optimal decoupling point, can you indicate what the bottlenecks are for ArcelorMittal?

1. Is there a push or a pull system at ArcelorMittal? Explain your answer.
2. Create a process diagram of the ArcelorMittal logistics process.

Insight into the current processes is necessary before processes can be assessed and proposals for improvement can be made. Use the symbols from chapter 1 ‘Logistics: principles and practice.’ according to the example on page XX.

1. Make an analysis of the lead times of ArcelorMittal.

The current turnaround time may be unreliable and too long. That could impede the improvement of logistics performance.

1. Make a graph of the lead time analysis.
2. Which bottlenecks do you see?
3. Which proposals for shortening and making the lead times reliable?
4. How can information technology in particular help solve the long and unreliable lead times of ArcelorMittal? Work out your proposal concretely.
5. Which costs and benefits must be recognized in this decision-making?
6. What statistical techniques can ArcelorMittal help to improve the reliability of the demand forecast? The financial manager wonders whether the reliability of the demand forecast can be improved.
7. What statistical techniques can ArcelorMittal help to improve the reliability of the demand forecast?
8. Which method do you find most suitable for ArcelorMittal?
9. Which components could possibly be improved within the organizational structure of ArcelorMittal?
   1. What is your opinion on the current organizational structure of ArcelorMittal?
   2. What changes should possibly be made to the organizational structure in order to achieve better logistics? Work out your proposals for the organizational structure as detailed and specific as possible.
   3. Create a job profile for a possible new function of logistics manager that matches the responsibilities that you have established in the organizational structure.

9. How can possible improvements in the logistics organization of ArcelorMittal be realized? Formulate an advice for ArcelorMittal to implement these improvements as well as possible.

10. In what way can logistical improvement processes such as LEAN contribute to the optimization of the logistics process of ArcelorMittal?

11. In what way can ArcelorMittal's reverse logistics contribute to a circular economy?

## 2.3 Sub-questions concerning Logistics financial management 1

1. What is the legal form of ArcelorMittal?
   1. What are the main characteristics of this legal form?
   2. What are the advantages and disadvantages of this legal form?
   3. With which legal form according to Dutch legislation is the legal form of ArcelorMittal comparable and why?
   4. Why did ArcelorMittal opt for this legal form?
2. As a team you form a transport company that works for ArcelorMittal. What does the balance at the beginning of the year look like for your transport company? Take into account all aspects within a large transport concern and work this out in a clear balance.
3. At what volume does a transport modality benefit? Work out the break-even analysis of road transport.
4. You will receive an additional large assignment from ArcelorMittal during the year. What does the balance of your transport company look like at the end of the year?
5. What does the profit and loss account look like for your transport company?
6. How does this translate into the final balance?
7. What is the development of ArcelorMittal's performance over the past 4 years?
   1. What is the development of profitability?
   2. What is the development of cash flow, after all 'cash is king'?
   3. For which challenges does ArcelorMittal stand up?
   4. What are the biggest risks?

## Learning objectives

The learning objectives (what you should be able to do after completion) are:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Description of the competence of the course:** | | | **EC’s** | **Level** |
| **1** | **Develop a logistics policy** | |  |  |
| 1.1.1 | You can formulate a problem statement, do a literature search, set up a (logistic) research strategy, and describe it in a research proposal. | 0,5 | 1 |
| 1.2.3 | You can provide alternative directions of solutions for the (technical) design of new - or the redesign of existing - logistics processes and methodologies, using the logistics concept. | 1,0 | 1 |
| 1.2.4 | You can weigh the pros and cons (both quantitative and qualitative) of alternative directions of logistic solutions, in terms of the logistics concept, and formulate an advice for the most appropriate direction of the solution. | 0,5 | 1 |
| **2** | **Managing work in logistics processes** | |  |  |
| 2.2.5 | You can make plans and set budgets for parties inside and outside the organization, and control these. | 1,0 | 1 |
| 2.3.3 | You can elaborate the working methods, technical equipment, location and layout of logistics processes in more detail, including the calculation of required capacities, investments, costs and revenues. | 1,0 | 1 |
| **3** | **Performing logistics operations** | |  |  |
| 3.2.3 | You can collect data on the realization of planned activities, record these in spreadsheets, convert them into logistic performance indicators (and other relevant information), and compile management reports. | 1,0 | 1 |

*Table 1: Competences, sub-tasks and learning objectives integrated project assignment 'The transport specialist'*

## Coaching

You will be coached and guided by lecturers and fellow students. In addition to the subject matter, the focus is on learning. A lot of personal initiative is expected, but also that you learn together with the fellow students and the connected lecturers.

During the term of the integrated project assignment, different learning moments are offered (e.g. lessons, excursions and guest lessons). These are provided by the connected lecturers and / or guest lecturers.

In the lessons of the somewhat more theoretical courses (namely: Intermodal transport, Introduction to international logistics and Logistics financial management 1) you gain knowledge about specific topics related to the integrated project assignment. You exchange knowledge and experiences, come to agreements and consult with one another. You are a discussion partner of each other and of the lecturer. You are challenged to action, critical thinking and reflection. You apply the acquired professional knowledge and skills in the integrated project assignment.

There are regular meetings with lecturers and fellow students. You discuss your progress and your approach with them at these moments. You come up with bottlenecks and try to solve them together. By asking for and receiving feedback and properly processing feedback, you can continuously improve your performance and deliver a good end product.

You get a good view of the study program and the profession of Logistics Engineer and, under the guidance of lecturers, you develop a critical attitude towards your own work and progress.

# 5. Assessment

The test part of the integrated project assignment concerns an oral assessment based on the portfolio (the collection of completed assignments - questions).

The miminum grade needed is a 5.5 (on a scale from 1-10) and counts for 100% in the final result.

A condition is that 80% attendance obligation is met during the scheduled hours.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CU70102** | | **Title:** The Transportation specialist | | | | | **Number of EC’s:** 5 | | **Compulsory:** Yes | | **Language:** ENG | |
| **Conditions for participation:** none | | | | | | | | | | | | | |
| **Special condition for awarding credits (check off):** at least 80% participation in lessons | | | | | | | | | | | | | |
| **Brief description of course content:** The focus of this first quarter is the logistical function of Transport specialist. The other courses like 'Intermodal Transport', 'Logistics financial management 1' and 'Introduction to international logistics' are somewhat more theoretical and provide the necessary basic knowledge and skills for the job. In parallel, this course 'The Transport specialist' takes place. During this course you apply what you have learned directly to a relatively large, integrated assignment that is derived from the professional practice. This happens partly in small groups and partly individually. When you complete the integrated assignment, you show that you have mastered the competences for the position of Transport specialist at the 'beginner level' (level 1) of the study program. | | | | | | | | | | | | | |
| **Exam**  **nr** | **Form** | | | | | **Content** | **Weighing**  **factor** | **Minimum**  **score** | **Exam in**  **in week** | **Review of corrected exam**  **(< 10 working days after**  **receipt grade)** | **Planning**  **resit exam**  **in week** | **Review of**  **resit exam**  **in week** |
|  | **O** | **W** | | **A** | **Form** |  |  |  |  |  |  |  |
| 1 |  |  | | X | Oral assessment based on portfolio | 1.1.1, 1.2.3, 1.2.4, 2.2.5, 2.3.3, 3.2.3 | 100% | 5,5 | 41 | 43 | 44 | 46 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

|  |  |
| --- | --- |
| **Exam nr.** | **Method of assessment** |
| 1 | Partly individual and partly in a group |
| **Number of contact hours** | 69 |

## 5.1 Study load

You are expected to work with your fellow students during the scheduled hours on the components of the integrated project assignment. In total, the study load is 140 hours.

# 6. Lesson planning and assignments

|  |  |  |
| --- | --- | --- |
| **Learning objectives** | **Activities** | **Lecturers** |
| **Lesson week 1:**  **(Learning) objectives:**  - Being able to visualize the logistic  process of AM by means of a  process flow diagram  - Analyze the goods flow of AM and  create a matching distribution  model  - Explain the legal form 'SA' of AM  with the advantages and  disadvantages | **(1) Assignments:**  Introduction to international logistics:  - AM's customer service policy with source indication  - Process flow diagram of logistic process AM containing symbols for  process, stock points and transport  Intermodal Transport:  - Origin / destination of finished products and raw materials and the  transport methods used  Logistics Financial Management 1:  - The legal form 'SA' of AM  **(2) Teams**  - Setting up the division of roles  **(3) Workshop**  Reporting techniques (Ms. F. Koevoets) | Dhr. D.A. Broek/  Dhr. Van t Veer/  Ms. F. Koevoets |
| **Lesson week 2:**  **(Learning) objectives:**  - Being able to Indicate elements of  the logistics concept for AM  - Explain the CODP for AM  - Determine push/pull system for AM  - Being able to appoint the KPIs for  AM in order to meet the logistical  objectives  - Determine transport distances  and optimal transport times for  AM  - Determine the assets and liabilities  of a large transport group  - Being able to draw up a break-even  analysis | **(1) Assignments:**  Introduction to international logistics:  - The supply chain (logistics chain) of AM and logistics concept with  input on process steps and quantities  - Determine the CODP for AM  - Determine a push or pull system for AM  - Identifying relevant KPIs for AM for the logistics objectives  Intermodal Transport:  - Determine transport distances and optimal transport times  Logistics Financial Management 1:  - Do research and draw up a balance of 'own' transport company  - Development of the break-even analysis of road transport  **(2) Teams**  - Progress in the group  **(3) Workshop**  Searching for sources (Ms. F. Koevoets) | Dhr. D.A. Broek/  Dhr. Van t Veer/  Ms. F. Koevoets |
| **Lesson week 3:**  **(Learning) objectives:**  - Being able to map the inventory  management of AM  - Being able to map the  purchasing process of AM  - Being able to create a trucking  model in Excel for AM  - Being able to estimate the  cost types and structure of  a company and translate  them into financial reports | **(1) Assignments:**  Introduction to international logistics:  - Mapping the inventory management of AM  - Mapping the purchasing process of AM  - Statistical techniques for demand prediction  Intermodal Transport:  - Set up an Excel model for trucking for AM  Logistics Financial Management 1:  - Translating the impact of a large assignment into the income  statement and final balance sheet of the 'own' transport comp.  **(2) Teams**  - Progress in the group  **(3) Workshop**  Theoretical framework (Ms. F. Koevoets) | Dhr. D.A. Broek/  Dhr. Van t Veer/  Ms. F. Koevoets |

|  |  |  |
| --- | --- | --- |
| **Lesson week 4:**  **(Learning) objectives:**  - Being able to map the production  process of AM  - Being able to map the distribution  process of AM  - Being able to analyze the lead times  of AM  - Being able to create a rail model in  Excel for AM  - Setting up cost calculations for  transport by truck and rail for AM  - Being able to estimate the cost  types and structure of a company  and translate them into financial  reports | **(1) Assignments:**  Introduction to international logistics:  - Mapping the production processes of AM  - Mapping the distribution processes of AM  - Analysis of lead times  Intermodal Transport:  - Complete the Excel model for trucking for AM with rail  Logistics Financial Management 1:  - Make cost calculations for the trucking and rail model for AM  - Translating the profit and loss account into the final balance sheet of the 'own' transport company  **(2) Teams**  - Progress in the group | Dhr. D.A. Broek/  Dhr. Van t Veer/  Ms. F. Koevoets |
| **Lesson week 5:**  **(Learning) objectives:**  - Mapping Reverse Logistics for AM  and indicating how this is done  contributes to the circular economy.  - Being able to create a barging  model in Excel for AM  - Being able to draw up cost  calculations for transport by barge  for AM  - To be able to translate financial  data into meaningful conclusions  about the development of a  company. | **(1) Assignments:**  Introduction to international logistics:  - Reverse logistics and the circular economy  Intermodal Transport:  - Completing the Excel model for trucking and rail with barging for AM  - Make a destination analysis with a summary of the Excel model as  explanation  Logistics Financial Management 1:  - Make cost calculations regarding the barging for AM  - Visualize how AM has developed over the past 4 years.  **(2) Teams**  - Progress in the group | Dhr. D.A. Broek/  Dhr. Van t Veer/  Ms. F. Koevoets |
| **Lesson week 6:**  **WRITTEN EXAMS!**  **(Learning) objectives:**  - Being able to formulate an advice in  the field of distribution to AM | **Lesson 6:**  Introduction to international logistics:  - Lean and other improvement methods  - Implementation improvements in the logistics organization of AM  **(2) Teams**  - Progress in the group | Dhr. D.A. Broek/  Dhr. Van t Veer/  Ms. F. Koevoets. |
| **Week 42** | **Autumn break** | **Autumn break** |
| **Week 43** | **Assessment De Transportspecialist** |  |
| **Week 44** | **Resits written exams** |  |

# Sources

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# Enclosure 1. Assignment ArcelorMittal

## 

**Assignment ArcelorMittal**

During the introduction week you will visit the company ArcelorMittal. This company is the largest producer of steel in the world.

This integrated project assignment is based on the supply chain of the products of ArcelorMittal. It is therefore important that you gather information about this process during the visit to ArcelorMittal.

Collect the following information:

1. General information about ArcelorMittal nationally and internationally. So the turnover, the number of products, the number of branches, the number of employees, the history, etc.

2. Where do the different raw materials come from? So the number of suppliers and their location.

3. What steps in the process goes through the material (raw materials) from the mine up to delivery to end customers of ArcelorMittal.

4. What delivery times does ArcelorMittal use? How is the transport of steel planned and how much should be transported? And how does the customer get his information about a delivery?

5. Does ArcelorMittal also have customers with specific wishes for steel? How does this process work?

6. How does ArcelorMittal ensure that there is sufficient stock for all end products?

7. How does ArcelorMittal ensure that the quality is and remains good at all times?

8. What are the biggest logistic challenges for ArcelorMittal?

9. To what extent is Cradle to Cradle applicable in the ArcelorMittal industry?

# Enclosure 2. Check list report writing (Introduction to international logistics)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Assessment form business report | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **Name student (s):** |  |  |  |  |  |  |  |
| **Study programme/group:** |  |  |  | **Date of completion** |  |  |  |
| **Course:** |  |  |  | **Date of assessment** |  |  |  |
| **Lecturer:** |  |  |  |  |  |  |  |
|  | Not good | **Good** | **Very Good** |  | **Not good** | **Good** | **Very Good** |
| **Cover** |  |  |  | Title page |  |  |  |
| Meaningful title |  |  |  |  |  |  |  |
| Subtitle |  |  |  | Title and subtitle |  |  |  |
| Title/subtitle contains no abbreviations |  |  |  | First name + last name author(s)/setting |  |  |  |
| Report type |  |  |  | Place of completion |  |  |  |
| Initials and surname of the author (s) |  |  |  | Year/date of completion |  |  |  |
| Course/Study |  |  |  | If required: student ID |  |  |  |
| Name of educational institution |  |  |  | If required: semester and academic year |  |  |  |
| Name of the supervisor (Lecturer) |  |  |  | If required: date of completion |  |  |  |
| Place of completion |  |  |  | If required: course |  |  |  |
| Year/date of completion |  |  |  | If required: name of lecturer/supervisor |  |  |  |
| Version number |  |  |  |  |  |  |  |
|  |  |  |  | **Introduction** |  |  |  |
| Table of contents |  |  |  |  |  |  |  |
|  |  |  |  | Has chapter number 1 |  |  |  |
| Similar titles |  |  |  | Includes 4 paragraphs |  |  |  |
| Finishing off part has no chapter number |  |  |  | Reason for writing the report |  |  |  |
| Headings are informative |  |  |  | Background information |  |  |  |
| Page numbers behind headings |  |  |  | Contains research question (and subsidiary questions) |  |  |  |
| Page numbers are aligned to the right |  |  |  | Research question is well-formulated |  |  |  |
| Does not contain the word 'chapter' |  |  |  | Approach to answering research question |  |  |  |
| Does not contain 'pg. no.' before the page number |  |  |  | Preconditions |  |  |  |
| Does not contain a chapter with 1 paragraph |  |  |  | Purpose of the report is stated |  |  |  |
| Has a clear structure |  |  |  | Research question +objective in the report are attuned |  |  |  |
| Sources are listed |  |  |  | Description of contents of the components |  |  |  |
| Appendices are listed |  |  |  | In present tense |  |  |  |
| Appendices have number and title |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Content** |  |  |  | **Preface** |  |  |  |
|  |  |  |  |  |  |  |  |
| Title gives clear indication of content |  |  |  | Is personal |  |  |  |
| Structure according to type of text |  |  |  | Does not overlap with introduction |  |  |  |
| Paragraphs > 1 subsection |  |  |  | Does not have a page number |  |  |  |
| Most chapters > 1 page |  |  |  | Comes before the contents page |  |  |  |
| Chapters and paragraphs: introductory text |  |  |  | Bears no chapter number |  |  |  |
| Enumerations executed correctly |  |  |  | Specifies author's name, place and date |  |  |  |
| Pictures: number and title |  |  |  |  |  |  |  |
| Pictures: reference in text |  |  |  | **Finishing off part** |  |  |  |
| Appendix, reference in text |  |  |  |  |  |  |  |
| Source references are present and correct |  |  |  | Sources list according to APA or other standard |  |  |  |
| Page numbers are present and correct |  |  |  | Original sources are listed |  |  |  |
| Chapter numbering is correct |  |  |  | Attachment(s): number and title |  |  |  |
|  |  |  |  | Has no chapter number |  |  |  |
| **Language use** |  |  |  |  |  |  |  |
|  |  |  |  | **General** |  |  |  |
| Spelling is correct |  |  |  |  |  |  |  |
| Use of I, you, he, we |  |  |  | Margins are set correctly |  |  |  |
| one… limited |  |  |  | Sufficient blank lines between text |  |  |  |
| There are many active sentences |  |  |  | Plain text 10, 11, 12 pnt letter |  |  |  |
| Readability is within the margin |  |  |  | Difference in size between headings and titles |  |  |  |
| Contains no spoken language |  |  |  | Footnotes are present and correct |  |  |  |
| Contains only functional abbreviations |  |  |  |  |  |  |  |
| Style is aimed at the target group |  |  |  |  |  |  |  |
| Sentences well-formulated |  |  |  |  |  |  |  |

**Enclosure 3. Assessment portfolio ArcelorMittal**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Maximum number of points** | **Weighing** | **Gained number of points** | **Explanation of gained number of points** |
| **Intermodal Transport** | | | | |
| 1. Product specification/ Safety Data Sheet | 4 | nvt |  |  |
| 2. Transport model (Excel file) | 30 | nvt |  |  |
| **Introduction to international logistics** | | | | |
| 3. Customer service policy | 3 | 0 | 0 |  |
| 4. Customer order decoupling point (CODP) | 3 | 0 | 0 |  |
| 5. Process flow (extended version) | 3 | 0 | 0 |  |
| 6. Analysis lead times | 3 | 0 | 0 |  |
| 7. Statistical techniques | 2 | 0 | 0 |  |
| 8. Improvements organisation structure | 2 | 0 | 0 |  |
| 9. Implementation improvements logistics organisation | 3 | 0 | 0 |  |
| 10. Contribution LEAN optimisation logistic process | 2 | 0 | 0 |  |
| 11. Contribution reverse logistics to circular economy | 2 | 0 | 0 |  |
| 12. Individual report logistical concept | 8 | 0 | 0 |  |
| **Logistics financial management 1** | | | | |
| 13. Legal form of ArcelorMittal | 6 | 0 | 0 |  |
| 14. Initial balance transport company | 7 | 0 | 0 |  |
| 15. Break even analysis road transport | 6 | 0 | 0 |  |
| 16. Final balance transport company | 7 | 0 | 0 |  |
| 17. Development of performance of ArcelorMittal | 7 | 0 | 0 |  |
|  |  |  |  |  |
| **Total Portfolio (ArcelorMittal)** | **Max is 100 points** |  |  |  |
|  |  |  |  |  |
| **Final grade** | | | **0,0** |

