CME 1200
COLLABORATIVE DESIGN AND ENGINEERING
STUDY GUIDE AND READER

CONSTRUCTION MANAGEMENT AND ENGINEERING

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3TU. TU Delft
Master Construction Management and Engineering

INSTRUCTORS AND CONTACT

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STUDY LOAD

7 ECTS

EDUCATION PERIOD

Q4
Starting date: 24 April 2017

COURSE LANGUAGE

English

LIST OF CONTENTS

PART I – STUDY GUIDE

1 COURSE CONTENTS AND CONTEXT

1.1 Course Contents

Collaborative Design and Engineering deals with processes in which multiple actors work together for a given civil engineering problem, in a complex environment. In this course students will gain understanding of Collaborative Design and Engineering by carrying out a design project in collaboration. In this project, students work together, deal with stakeholders with diverse interests, use value and scenario concepts for dealing with complexity, etc.

1.2 CME1200 Compared to CME1210

CME1200 Collaborative Design and Engineering focuses on the soft factors that are key for successfully dealing with complex problems in large groups. CME1210, Infrastructure Asset Management has a focus on the harder factors for dealing with multidisciplinary design, engineering and management problems, In CME1200 students will work together in large groups, and do some individual assignments in parallel. Table 1 summarises the differences between the two courses.

Table 1 Infrastructure Asset Management compared to Collaborative Design and Engineering

Infrastructure Asset Management	Collaborative Design and Engineering
Focus on hard factors	Focus on soft factors
Small groups (5-6 max)	Large groups (~ 25-30 max)
Analysis of tools/methods	Complex problem analysis
Theory, application and audit report	Two reports: analysis and design
Peer review (of application report)	Peer pressure – groups dynamics
Apply own RQ to given case	Apply RQ to a given case
Audit of each other's report	Self reflection (Kolb)

1.3 Context of The Course

The course Collaborative Design and Engineering (CME1200) is part of the MSc Construction Management and Engineering. The content of the CME programme comprises all aspects of the construction process, including the definition, appraisal, design and delivery of the projects, as well as the lifetime management of objects. The programme addresses the interests of all stakeholders involved, as well as those of the construction business in its broadest sense. For this reason, the research underlying the CME programme has generated an interdisciplinary programme focusing on the integration of technology and management in order to produce innovative solutions to societal needs in the field of construction engineering. The design-oriented approach, the strong connection between scientific research and construction engineering practice, and the emphasis on disciplinary integration are distinctive features of this Master's programme.

The general mission of CME is to improve the performance of the construction industry and to deliver solutions to societal problems. More specifically, the goals of CME are:

- To produce good engineers with a wide range of competencies: The competencies (knowledge, skills and attitude) ensure that the students possess current knowledge, that they are able to use state-of-the-art methods, techniques and tools, and that they will develop a professional attitude that will allow them to perform at the highest level.

- To educate students as critical professionals who are able to serve as and collaborate with professionals in various national and international settings.
- To provide a stimulating and supportive environment in which students can learn the competencies that will be expected of the managers of tomorrow.
- To realise regular involvement with the national and international construction industry at all levels.
- To offer education in which students are able to integrate technical and management issues.

The compulsory courses of the CME master are divided into three main topics: 1) project management in general, 2) aspects of construction projects, 3) other courses.

Project Management in General

- Project Management (SPM8000). This course is designed to provide the student with scholarly knowledge in the practice of managing construction projects, mainly major construction projects, in order to prepare the student to move into managerial roles.
- Dynamic Control of Projects (CME2200). This course gives a completely different view on standard project management. The worlds in and around a building or structure changes faster than the building or structure. This requires new methods of control in which the built environment is subject to change during its lifetime.

Aspects of Constructions Projects

CME students will need insights, concepts and skills to understand the nature of interaction between actors regarding the initiation and development of and decision-making on projects under uncertain and dynamic conditions.

- Process Management (SPM8001). This course provides the student with understanding of and how to adequately deal with above characteristics, in addition to project management.
- Infrastructure Asset Management (CME1210-14) learns the students to integrate newly acquired and previously acquired methods, techniques, aspects and tools for multidisciplinary design, engineering and management problems and projects and secondly to orientate on different viewpoints by critically looking at the problems and projects from those various viewpoints
- Financial Engineering (CME2300) deals with the finance issues related to the implementation of civil engineering projects.
- Infrastructure Projects: Assessment and Planning (CT4760). This course teaches the student how to socially, economically and financially assess and evaluate infrastructure projects.
- Legal and Governance (AR8002). This course covers the legal aspects of construction projects. After this course the students will be able to communicate with legal specialists and to anticipate legal issues while managing the others aspects of their project.
- Cross-cultural Management (EPA1431). The course teaches the student to understand how cultural differences between people from different regions in the world impact on their organisational and problem-solving behaviour.

Other Courses

- Methodology for Scientific Research (CIE4030). After this course the student will be able to design a research project, apply the proper statistical testing theory, to critically examine the literature on his field of study and to apply the proper research methodology.
- Philosophy, Technology Assessment and Ethics for CT (WMO312CT). This course provides the student with more knowledge on philosophy and ethics applied to the world of building and construction.

2 STUDY GOALS

After this course, students must have understanding of collaborative design processes, i.e. of design processes in the context of multi-disciplinary, geographically distributed teams. They will do so acting in an environment not only with different stakeholders with diverse interests but also with different group members with diverse interests.
The students will be able to apply collaborative design skills, not only the necessary technical competences in civil engineering design, but also collaboration skills, dealing with organisation, management, teamwork and effective use of information technology.

The learning objectives are that students will be able to:

1. Work under time pressure with an overload of data, requirements and scenarios;
2. Work in teams with people of various backgrounds and cultures;
3. Define the performance of infrastructures systems in a dynamic environment;
4. Interact and collaborate with various disciplines;
5. Interact and collaborate with various stakeholders;
6. Integrate the aspects of maintenance in the design;
7. Manage process risks and project risks;
8. Identify the conditions that are crucial for collaboration in groups;
9. Recognise behaviour and conditions that are crucial for team work.

3 COURSE DESIGN

3.1 Course Organisation

Rob Schoenmaker coordinates the course CME1200. Rob Schoenmaker and Jules Verlaan will supervise the teams and will act as both process coach of the teams and assessor of the team and individual results. It is a Master's course and will build upon the knowledge the students already have. Because of the variation in students taking this course some synchronisation in knowledge is necessary, hence the (theoretical) lectures during the first three weeks.

3.2 Study Load

The course is 7 ECTS over a period of 8 weeks, resulting in 25 hours per student per week. These 25 hours are divided into: 4 hours of lectures and 21 hours (nearly three full working days!) for self study, site visits, interviews with stakeholders and working in the project team, plus the individual assignments.

> You will experience a lack of time and an overload of information during this course.
> This will take you out of your comfort zone. It will enable you to learn.

3.3 Education Method

The course is a project course. There are two lectures every week that introduce and give guidance to the project. There is no examination of this course. The assessment is done on the team (group) and individual (personal) results, see chapter 4.
This project is about a case – for more details: see the description of the Group Assignment on Brightspace. The students are divided into (three – depending on the number of students) teams that each take on the case. The students will divide the roles and tasks within their team. The first stage of this project is primarily about gathering information and analysing the interests of different parties of the case. The first stage is finalized with a report and a presentation by the team on their analysis. In the second stage of the project the students will prepare a proposal based on the results of the first stage. At the end of the course each team will produce a report and give a final presentation to the client, who will judge the final results and will select the best solution from the group presentations.

3.4 Course Timeline

During the first part of the course the emphasis of the lectures will be on knowledge transfer (introduction to the case, methods and collaboration). Some of the lectures are also used for presentations by the teams (students). During the second part of the course the emphasis of the contact hours (not really lectures anymore) will be on guiding the project teams by organising weekly consultation and progress meetings.

3.5 Lectures

The lectures for this course will be held during the first three weeks on Monday (13:45 – 15:30) and Wednesday (08:45 – 10:30). For the exact location check http://huidigeroosters.tudelft.nl/

Working in large groups on a complex problem is a major challenge. The lectures and workshops provide structure for your planning and tasks that need to be done. The accompanying book for the lectures is: TeamWorks (Smulders et al, 2012).
You have to prepare for the lecture by reading the chapters mentioned in blue in the last column.

Table 2 Course outline and overview of assignments (I=individual, G=Group)

Lectures		Topics (tentative)	Assignment (I or G)
Week	Date		
4.1	23 Apr '18	Introduction - To the course (RS) - To the assignments (RS) - To each other	1. Literature Study Commentary (I) 2. Project Management Plan (G) TeamWorks: Chapter 0 and 5
	25 Apr '18	Group Dynamics workshop I (RS) - Group ambitions - Individual expectations	3. Partnering Charter (G) 4. Belbin test (online) (I) TeamWorks: Chapter 3
4.2	30 Apr '18	Site Visit Oosterschelde with presentations and guided tour – full day. *See Brightspace for more details*	4. Belbin test (I) TeamWorks: Chapter 1
	02 May '18	Group Dynamics Workshop II - Presentation Partnering Charter (students) - Team roles (RS)	
4.3	07 May '18	Progress and expectations - Problem, goal, research question - Reporting style	
	09 May '18	Presentation PMP (students) Part. Ch., Lit. Study highlights, Trust (RS)	TeamWorks: Chapter 8 and 9
4.4	14 May '18	Group Dynamics workshop III (RS) - Team interaction & Leadership styles - Feedback on PMP	6. Leary's Rose test (I) 7. Formative 360 feedback (I) TeamWorks: Chapter 4, 6 and 7
	16 May '18	Progress meeting (RS)	
4.5	21 May '18	No lecture	
	23 May '18	Presentation analysis phase (RS, JV & RWS)	5. Case Assignment Phase I (G)
4.6	28 May '18	Consultation meeting (RS)	TeamWorks: Chapter 10
	30 May '18	Progress meeting (RS)	
4.7	04 Jun '18	Consultation meeting (RS)	
	06 Jun '18	Progress meeting (RS)	TeamWorks: Chapter 11
4.8	11 Jun '18	Consultation meeting (RS)	
	13 Jun '18	Final presentation (RS, JV, RWS)	8. Case Assignment Phase II (G) 9. Reflection Report (I) 10. Summative 360 feedback (I)
4.9	21 Jun '18	CME Award in PSOR	

JV = Jules Verlaan; RS = Rob Schoenmaker; RWS = representatives of Rijkswaterstaat

3.6 Group Dynamics Workshops

Three of the lectures will be given in the form a workshop. Each of the workshops will build on the results of the previous one and on the results of online tests. These workshops require active participation of all the students. The workshops include activities that are the basis for some of the assignments.

The Group Dynamics Workshops actively deal with the theory on group dynamics as described in chapter 8: The Workshops: Collaboration in Project Teams.

> The theory for the workshops is based on:
> Adair J., (2009), *Effective Teambuilding - How to make a Winning Team*, Pan Books, London

3.7 Consultations and Progress Meetings

There will be weekly consultations and progress meeting between representatives of each team and the supervisors. The meeting for each team will last max. 45 minutes.
A representative (student) of each team will chair the progress meeting. The teams will prepare the meeting and make sure that the proper items are addressed (agenda, decisions, actions, deadlines and problems). A concise progress report addressing the following points has to mailed to the supervisor no later than the evening before the meeting:

1. Most important activities and achievements of past period
2. Points of interest and possible problems
3. Preview of activities for next period

A format for this progress meeting can be found in Appendix B and on Brightspace.

Representation of the team – it is all about collaboration

In its essence this course is all about collaboration. To put emphasis on collaboration and team results the students that represent the teams at consultations, progress meetings and presentations have to rotate, in such a way that each student will have at least once actively participated in one off the meetings. Rotation and representation will be according the schedule: in table 3.

Table 3 Representation at presentations, progress meetings and consultations

	Activity	# Representatives	# Students present
1.	15 min Presentation PMP	3 (1)	All
2	Presentation analysis phase	3 (1)	All
3	Consultation	3 (3)	Representatives
4	Presentation – Progress Meeting	3 (3)	Representatives
5	Final presentation	3 (1)	All

Between brackets the number of meetings

4 ASSIGNMENTS

Table 4 Overview of the assignments and their deadline (G = Group, I = Individual)

	Assignment	Start test	Deadline	
			Date	Time
1.	Literature Study Commentary (I)		09 May	06 PM
2	Partnering Charter (G)		03 May – after presentation	10 AM
3	Belbin test (I)	26 April	30 April	06 PM
4	Project Management Plan (G)		09 May – after presentation	06 PM
5	Report Case Assignment Phase I (G)		18 May – before presentation	10 AM
6	Leary's Rose test (online) (I)	07 May	09 May	LATE
7	Formative 360 feedback (I)	07 May	09 May	LATE
8	Report Case Assignment Phase II (G)		15 June – after presentation	10 AM
9	Reflection Report (I)		15 June	10 AM
10	Summative 360 feedback (I)	11 June	15 June	10 AM

Check the exact times for hand-in of the assignments. Timeliness of handing in the assignments is important to facilitate progress of the course. Untimely handing in of the assignments can lead to a correction of your mark, regardless whether it is a group or individual assignment.

Assessment Criteria - General

There are some general assessment criteria for all assignments in this course. All reports should meet the requirements of a good scientific report, defined as:

- The report has a clear line of reasoning and structure;
- The report is to the point;
- Graphs, illustrations and tables are self-explanatory, relevant, have a description and are numbered;
- Appendices are appropriately used;
- It has correct use of English language with little or no spelling and/or grammatical errors;
- The report is without any plagiarism;
- Citations and references are consistently used (e.g., Harvard, Numbered or APA).

Overview of the assignments with assessment criteria

4.1 Literature Study Commentary

You will do this assignment individually. The assignment is to conduct a literature study in the field of collaborative design in construction and/or asset management. For this literature study, you have to select and study three publications. For your inspiration, we have posted a short list on Brightspace. You may select one article (no more!) from the literature list on Brightspace. You have to select at least two other publications yourself. Your starting point should be a *curiosity question* on a topic related to collaboration in construction and/or asset management. Refine this topic and use it as a focal point in your search strategy for relevant articles. Make sure that the topics of those papers are in line with each other and relevant to our line of work: construction management and engineering. After studying the publications, you will write a summary of and a commentary on each of the three publications separately, followed by a commentary on the three papers combined.

The total word limit for this assignment is 2800 words.
The summary and commentary should include:
- Introduction
- the full details of the publications (authors, title, year, where published, etc.),
- your approach (what am I going to do),
- your research strategy (why these articles),
- a short summary of the essentials of the paper (approx. 250 words for each article),
- your own conclusion about the line of reasoning of each article,
- the applicability in our field and
- what binds these three articles together.

The literature study is also a preamble to the last individual assignment, the reflection report. In your reflection report we want you to use the opportunity to come back to your commentary and literature study.

> When describing the essentials of the original article:
> Be very much aware to use your own words – avoid plagiarism!

Assessment Criteria – Literature Study Commentary

Content

- Search strategy
  - Are your topic and approach clear. Is it clear what are you going to do?
  - Is it clear why you have chosen these articles?
- Relevance:
  - How relevant are these articles in our field of work: Construction Management and Engineering?
  - How scientific are these articles – ranging from highly cited journals to student papers?
- Quality of the summary
  - See chapter 6 Writing Summaries
- Line of reasoning
  - Visibly own input to own conclusion
    Focus your conclusion on the content of the paper, not the structure
  - Degree of combining the three articles
- Clarity, brevity: ~250 words for each summary, and in total a 2800 words limit

Form

- Structure
- Language, spelling
- Layout, attractiveness
- Correct use of references

The assessment criteria of this assignment will be explained during one of the lectures and will be made available on Brightspace.

> Learning objectives:
> - Be able to conduct a literature study
> - Study the topic intensively in a limited period of time
> - Present the results of a literature study in condensed writing
> - Apply summarised knowledge and add your own commentary

4.2 Project Management Plan

Each team prepares a project management plan (PMP) on the basis of the aspects often summarized as time, money, organisation, risks and information. A good PMP should at least contain those aspects and:

- Problem definition
- Goal description
- Definition of quality of the result
- System boundaries and surrounding system (influences)
- Work breakdown structure
- Organisational breakdown structure (who does what within the team)
- Information management
- Communication
- Planning
- Financial or resource management
- Risk management

Assessment Criteria – Project Management Plan

The Project Management Plan should be written according to the general agreed criteria for good reporting.

> Remember, the general agreed criteria are: start with a problem statement, define a goal, define a research question, explain the use of theory/concepts, give a clear presentation of findings, include a discussion and of course feedback to your own research question.

Content

- Standard requirements for reporting good research
  - As mentioned above
- Coverage of the required topics
  - As mentioned above
  - Completeness
  - Use of own words
  - Clarity, brevity – limit your number of word and pages!
- Own conclusion, reflection on the assignment

Form

- Structure
- Language, spelling
- Layout, attractiveness
- Correct use of references

The assessment criteria of this assignment will be explained during one of the lectures and will be made available on Brightspace.

> Learning objectives:
> - Be able to work in a team on the development of a management plan
> - Identify your personal team role
> - Identify your professional role in a team
> - Negotiate your interests and objectives
> - Present a project management plan in writing and speaking

4.3 Partnering Charter

This is a group assignment. Details for this assignment will be explained during the first workshop in Group Dynamics. Make sure that everyone in your team supports and signs the Partnering Charter that you submit as a team.

Assessment Criteria – Partnering Charter

Content

- Clear team mission statement that answers 'Why are we here?'
- Clear and specific goal
- Level of ambition (i.e., grade for group assignment Oosterschelde case)
- Mention of core values
- Statements on the three key areas
- Statement on potential problems
- Commitment (i.e., all team members have signed the Partnering Charter)

Form

- Structure
- Language, spelling
- Layout, attractiveness

> Learning objectives:
> - Identify shared goals, objectives, norms and values in a team
> - Negotiate your interests and objectives
> - Be able to align individual and group goals, objectives, norms and values

A broader description of the Partnering Charter is given in chapter 8.
Examples of Partnering Charters can be found in Appendix A.

4.4 Belbin Test (online)

This is an individual assignment. Each student will do the online Belbin test in advance of the second workshop on Group Dynamics. The results of the Belbin test are input for that workshop. Non-compliance with this assignment is a form of betrayal to yourself and your team members and will be reflected in your grading.

Assessment Criteria – Belbin test

There is no grading involved in the Belbin test. However, non-compliance with this assignment will be reflected in your personal grading.

> Learning objectives:
> - Identify your own personal team roles
> - Identify your team members team role
> - Be aware of team role specifics

4.5 Leary's Rose Test (online)

This is an individual assignment. Each student will do the online Leary's Rose test in advance of the third workshop on Group Dynamics. The results of the Leary's Rose test are input for that workshop.
Non-compliance with this assignment is a form of betrayal to yourself and your team members and will be reflected in your grading.

Assessment Criteria – Leary's Rose test

There is no grading involved in the Leary's Rose test. However, non-compliance with this assignment will be reflected in your personal grading.

> Learning objectives:
> - Identify how personally or distantly you interact with other team members
> - Be aware of one's own interaction with other people

4.6 Group member evaluation - Formative Feedback (online)

Halfway the course CME1200 you will be asked to measure your contribution as well as the contribution of your group members to the group process. This is done in order to learn from each other, and is meant to positively change working attitude, attendance, and contribution to the group product, if necessary (formative assessment).
The questions that will be asked are:
Which mark would you give [this person] for:

1. *for his/her contribution to the results of the assignments?*
2. *for his/her contribution to the atmosphere in the group?*
3. *for his/her efforts put in the assignments?*
4. *for his/her attendance at the group meetings (often/not often present)?*
5. *for the degree in which he or she kept to the agreements made?*

You will be asked to answer these questions about yourself and about each of a few other team members.

> During this course CME1200 we will use the questionnaire-system 360test.nl for this.
>
> At some point you will automatically receive an e-mail to register yourself at www.360test.nl and a request to fill out the questionnaires.
>
> Although the questions are in English, the system is set up in Dutch. In your personal account "Uitnodigingen" (=invitations) you will then find the questionnaires to fill out: one for each of the team members. From there on it is quite straightforward.
>
> You will be asked to give marks from low to high as if it is a school mark, with lowest score being very bad and the highest score being excellent.

Assessment Criteria – Formative 360° Feedback

This test is formative and will give you feedback and an indication of how your own input and behaviour is assessed by your fellow team members. There is *no grading* attached to this formative feedback. At the end of the course there will be a *summative* 360˚ feedback.
However, non-compliance with this formative assignment will be reflected in your personal grading.

> Learning objectives:
> - Be able to (objectively) assess others
> - Identify how your own behaviour is assessed by your fellow team members

4.7 Report Case Assignment Phase I

Each team will work separately and in parallel on the Oosterschelde group assignment, the central assignment in this course. A complete description of the group assignment and the

accompanying references and sources is given in chapter 9. Each team will act as a consulting agency and will be tasked with:

- Collecting the basis information and preconditions
- Making an inventory of present policies, goals and visions
- Analysing the problem
- Come up with one or more several realistic solutions

Phase I Orientation and Analysis

Week 4.1 – 4.4

In the first weeks not only information has to be collected, but also a broad analysis of the Oosterschelde water system, the Oosterschelde Barrier, the current strategy and the interests of the parties involved has to be conducted.

> A site visit with introductions by Rijkswaterstaat is part of the first phase.

At the end of the second week a project plan has to be submitted, see chapter 4. Each team will do research by studying the available documents, Internet sources and conducting interviews with stakeholders. An introduction to the parties/stakeholders that the teams can access will be presented on Brightspace. It is up to the teams themselves to plan, prepare and conduct the (mandatory) interviews.

> There is one important general condition concerning the stakeholders. Each stakeholder may only be approached once. This means that the (three) teams will have to collaborate on (equally) sharing the access to the stakeholders and of course exchanging the information from the stakeholders.

The analysis should include a clear description of the problem(s) and a rough description (general) idea of the solutions for the problem(s). These adaptions to the current strategy will be further designed in Phase II. The results of the analysis (Phase I) will be presented to the lecturers and representatives from Rijkswaterstaat. Both the report and the presentation will be part of the Phase I assessment.

Assessment Criteria – Phase I

The Phase I report should be according to the general agreed criteria for good reporting.

> These general agreed criteria are: start with a problem statement, define a goal, define a research question, clarify method of the research, explain the use of theory/concepts, give a clear presentation of findings, include a discussion and of course feedback to your own research question.

Both Rijkswaterstaat and the lecturers will assess the Phase I report.
The focus of the assessment of Rijkswaterstaat is on the content.

Content

- Standard requirements for reporting good research
  - As mentioned above
  - A clear management summary, with focus on content, not the process
- Coverage of the topics
  - Completeness
  - Use of own words
  - Clarity, brevity: limited number of pages
    - Maximum 70 pages' body text, plus maximum 30 pages' appendices
- Clear conclusion, reflection

- Clear link with Phase II, with a description (general) idea of the solutions for the problem

Form

- Structure
- Language, spelling
- Layout, attractiveness
- Use of references

> Learning objectives:
> - Be able to apply collaborative design skills
> - Present the results of a case assignment in writing and speaking

4.8 Report Case Assignment Phase II

Phase II Synthesis and Design of (sustainable) adaptations

Week 4.5 – 4.8

After the presentation of the analysis, the synthesis and design of sustainable alternative solutions can continue. This will mean that roles, tasks and focal points will have to be redistributed within the team. This (new) team will design the solutions for the problem that has been identified in Phase I.

Make sure that you take the opportunity to consult the specialists from Rijkswaterstaat, the Province of Zeeland or the Waterboard for your design of the solutions.

The results of the design phase will be presented to the lecturers and representatives from Rijkswaterstaat. Both the report and the presentation will be part of the Phase II assessment.

Assessment Criteria – Phase II

The Phase II report should be according to the general agreed criteria for good reporting.

> These general agreed criteria are: start with a problem statement, define a goal, define a research question, clarify method of the research, explain the use of theory/concepts, give a clear presentation of findings, include a discussion and of course feedback to your own research question.

Both Rijkswaterstaat and the lecturers will assess the Phase II report.
The focus of the assessment of Rijkswaterstaat is on the content.

Content

- Standard requirements for reporting good research
  - As mentioned above
  - A clear management summary, with focus on content, not the process
- Coverage of the topics
  - Completeness
  - Use of own words
  - Clarity, brevity: limited number of pages: a maximum 70 pages' body text, plus maximum 30 pages' appendices
- Clear conclusion, reflection
- Clear link with Phase I

Form

- Structure
- Language, spelling

- Layout, attractiveness
- Use of references

Learning objectives:
- Be able to apply collaborative design skills
- Present the results of a case assignment in writing and speaking

4.9 Individual Reflection Report

This is an individual assignment. You have to describe and reflect on an incident that occurred during the assignment and while working in your team. For this assignment, it is strongly advised to keep a personal project logbook to record events, emotions, decisions etc. that will help you to successfully finish this assignment. Your report should be limited to four A4 pages' body text, excluding front-page, introduction, table of contents, references and maximum 4 pages' appendices.
The assignment is based on the learning cycle of David Kolb. Kolb first published his learning style model in 1984. Kolb states that learning involves the acquisition of abstract concepts that can be applied in a variety of situations. In his theory, new experiences provide the opportunity for creation and application of concepts. That is exactly was this course will provide for you, it provided the opportunity for learning through experience, or as Kolb states: "Learning is the process whereby knowledge is created through the transformation of experience" (Kolb, 1984, p. 38). Kolb learning style can be represented by a four-stage model, see Figure 1.

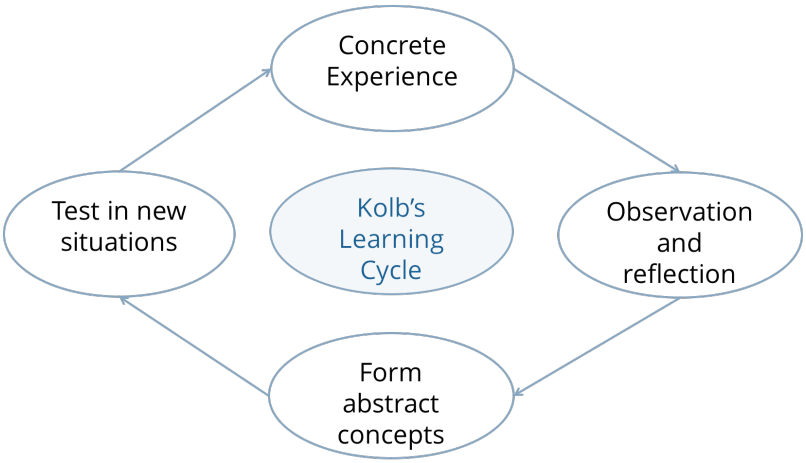

Figure 1 Kolb's Learning Cycle

In this assignment, you will go through all four stages of the model. The last stage 'Test in new situations' is adapted for this assignment:

1. *Concrete experience:*
   Select and describe a certain incident from the work in your group from this course, describe what happened and how you handled this incident in your own words. A simple objective description will not do. Feelings you had, thoughts and perceptions are an important part of your report. Reflect on what the effects of your actions were.
2. *Observation and reflection*:
   Look at the incident from various viewpoints and reflect: describe how e.g., a neutral person, or another group member could have interpreted what has happened.
3. *Form and use abstract concepts:*
   Show that using the theoretical aspects that were dealt with in the Group Dynamics workshops and the lectures give you a better understanding of the incident.

4. *Prepare for new situations:*
   And then finally describe, using your experience and acquired knowledge from this course, how you would handle such an incident in the future and how you would prepare yourself before taking any action.

In your reflection report we also want you to link back to your commentary of the literature study assignment.

Assessment Criteria – Reflection Report

The Reflection Report should be according to the general agreed criteria for good reporting.

> These general agreed criteria are: start with a problem statement, define a goal, define a research question, clarify method of the research, explain the use of theory/concepts, give a clear presentation of findings, include a discussion and of course feedback to your own research question.

Content

- Standard requirements for reporting good research
  - As mentioned above
- Coverage of the topics of the four stages:
  - Personal interpretation of the situation, the incident
  - Show different viewpoints
  - Link with theory, literature study and workshops
  - Own conclusion, future actions
- Clarity, brevity: limited number of pages: a maximum 4 pages' body text, plus maximum 4 pages' appendices
- Clear link with the course

Form

- Structure
- Language, spelling
- Layout, attractiveness
- Use of references

> Learning objectives:
> - Be able to reflect on one's own behaviour, decisions and (re)actions
> - Be able to apply newly acquired knowledge on group dynamics
> - Be able to link generic literature findings to specific situations

4.10 Group member evaluation - Summative Feedback (online)

This is the same as assignment 4.6. But now the online feedback will be in a *summative* form to provide grading on the student's personal contribution to the group assignment.

Assessment Criteria – Summative 360° Feedback

The results of this test are input to your personal grading. Non-compliance with this formative assignment will also be reflected in your personal grading.

> Learning objectives:
> - Be able to (objectively) assess others
> - Identify how your own behaviour is assessed by your team members

5 ASSESSMENT

5.1 What Will Be Assessed?

The assessments of the group and individual assignments together will make up your final grade, see table 4. Your final grade is a weighted average of the three assessments, provided you have passed the following conditions:

• The grade of each individual a
- each single assignment grade (team or individual) has to be at least 5,0 and
- the team assessment has to be at least 6,0 and
- the weighted average of the individual assessment has to be at least 6,0

Assessment of The Team Assignments

The team assessment combines the overall impression of both (product) results and functioning of the team during the entire project. There are five items that contribute to the score:

- Partnering Charter and the presentation
- Project Management Plan and the presentation
- Phase I report, presentation and client judgement
- Phase II report, presentation and client judgement
- Timeliness and quality of planning and progress meetings

Assessment of The Individual Assignments

There are three items that contribute to the individual assessment score:

- Literature study report
- Results from 360° feedback test, possibly adjusted by a personal impression given during progress meetings, consultations, workshops and presentations and participation in the online tests
- Individual reflection report

Table 5 Calculation Of Final Individual Score

Team assessment	50%	Partnering Charter	5%
		Project Management Plan	5%
		Case Assignment Phase I report – incl. presentation	10%
		Timeliness and quality of planning and progress meetings	10%
		Case Assignment Phase II report – incl. presentation	20%
Individual assessment	50%	Literature study report	15%
		Individual reflection report	20%
		Results 360° feedback + personal impression	15%
Final individual score	100%		100%

* Timeliness of handing in the assignments is important to facilitate progress of the course. Untimely handing in of the assignment may lead to a correction of the grading. Time management, planning and balancing your individual and group workload are essential professional skills and part of the learning goals of this course.
** A lack of participation in the online tests will lead to a correction in your grading. Giving feedback and learning from feedback are essential in this course.

5.1.1 Assessment Criteria

Details of the assessment criteria of the assignments are mentioned in chapter 4 and will be explained during the lectures.

5.2 What If?

You will not pass this course in case of the grading of:

- at least one of the individual assignments is < 5,0 or
- the group assignment is < 6,0 or
- the weighted average of the individual assignments is < 6,0

You have the opportunity to repair **one** of the assignments. The term for handing in the repaired assignment is **three weeks** after the feedback lecture. The date of the feedback lecture will be announced on Brightspace and will be held as soon as possible after the grades of all the assignments are available. The maximum grade after repair is 6,0.

PART II – READER

6 WRITING SUMMARIES

Source:
Columbia University (2012). Writing Summaries. New York, NY, Columbia University, New York.

6.1 Keep in Mind Why You Write a Summary and Commentary

Firstly, your summary is meant for the reader. You give as accurately as possible the full sense of the article in a more condensed form than the original form, stating the main point, purpose, intent, and supporting details in your own words.
In doing so originality matters, your summary should be **yours**: do not copy phrases from someone else's article.
Secondly, you do it for yourself. Making the summary will help you to get a better idea of the original article.

> Keep track of the articles you collect and read.
> Use a bibliographic tool such as Reference Manager or EndNote – free download from Brightspace
> Not only will that help you in sorting, accessing en citing articles, but that will also help you in correctly citing the articles that you used.

6.2 How to Write a Summary?

Start with identifying the article

Identifying the type of article is the way to start, because the type of article determines the approach the author has taken:

- *Empirical studies*:
  These articles usually have four distinct sections. You will want to locate and write about the *purpose* of the study or the problem under investigation; *the methods used*; *the results*; and the *conclusions* the author makes from the results, including implications for the field of practice.
- *Review articles:*
  These articles evaluate studies that are already published. You will need to describe the *question* or *problem* being addressed; summarize *the literature review*, which is a major part of a review article; and describe the author's *suggestions* for the next steps in dealing with the problem.
- *Theoretical articles:*
  These articles examine research literature to assess and/or advance current theory. The summarizing process is similar to that for a review article.
- *Methodological studies:*
  These articles focus on approaches and analyses of new or existing methods of conducting research. Your will want to describe the *approach*, its *applicability*, supporting details, *conclusions*, and *implications* for the approach or analysis under study.
- *Case studies:*
  These articles describe work with an individual or organization to illustrate a problem, a way of solving a problem, or point to areas of needed research. You will want to describe the *purpose*, *approach*, *results* and *conclusions*.

Read and summarise

When reading and summarising the article, keep the following (IMRA) questions in mind:

- *Introduction:* Why this article? What is the author's purpose?
- *Methodology:* How is the study conducted? What is the author's method?
- *Results:* What are the results, the findings?
- *Analysis:* What is the analysis? What are the conclusions? What are the implications?

Then first go through the article in general. The author will have used headings, subheading, graphs and tables: they have a function. Next read the introduction and conclusion. Continue reading the body of the article.
Highlight important points in the text. Write down the central idea and the author's purpose. Jot down important notes.

> Organise your thoughts and ideas
> Mind mapping may help you in identifying key points (to discriminate, decide what is important) and maintaining the structure in your summary.

Write

Then begin *writing* the summary. Start with the main idea. Do not copy phrases, use your own words – avoid plagiarism.

> Selective use of the author's terms and data is not plagiarism, but the use of phrases may very well be. It is important to write the summary in your own words.

Revise

Finally revise and finish your summary by asking yourself:

- Have I captured the author's words without changing their meaning?
- Have I got the main idea accurately and in my own writing?
- Have I cited the article correctly?

6.3 Include Your Own Conclusion - Commentary

your own conclusion or commentary about the articles you have summarized, is an important part of this assignment.
When writing your own conclusion or commentary, focus on the content of the paper.
You can do so by asking yourself the following questions like:

- What is the relation between the three articles?
- What degree do these articles answer my research question?
- How relevant are these articles in the field of construction management?
- What about the applicability of the conclusion in the articles?
- Do I agree with the conclusion in the articles?

7 REPORT WRITING

Source:
Elling, R. et al., (2012), Report writing for readers with little time, Noordhoff: Groningen/Houten
tulib.tudelft.nl

7.1 Tips for Research and Report Writing

The TU Delft library offers a good website with information about finding the right resources, searching, managing your information and publishing it.

See: tulib.tudelft.nl

7.2 Structure of Your Report

An important part of this course is the delivery of two reports: Phase I, Analysis and Phase II, Synthesis. All your work that has gone into the analysis and synthesis phases is condensed in these two reports.

The description below is based on chapter 6 of *Report writing for readers with little time, Elling et al.* Please refer to this book or others sources for writing reports.

Make sure that your reports at least contain the following parts:

- Title page
- Preface
- Table of contents
- Summary
- Introduction
- Chapters with content
- Conclusions
- Recommendations
- References
- Appendices

The *title page* should contain all relevant information for referring to your report.
The *preface* may contain information about why the report was written, for whom, how it should be used and the context of the report.
The *table of contents* is the starting point for finding information in the report. Make sure that your chapters and paragraphs have informative titles.
The *summary* has to give the readers a good outline of what is in the report and should guide them to what is important for them read. The summary should be readable on its own, short, concise, and specific. The summary is not a process description, but deals with the content of the report.

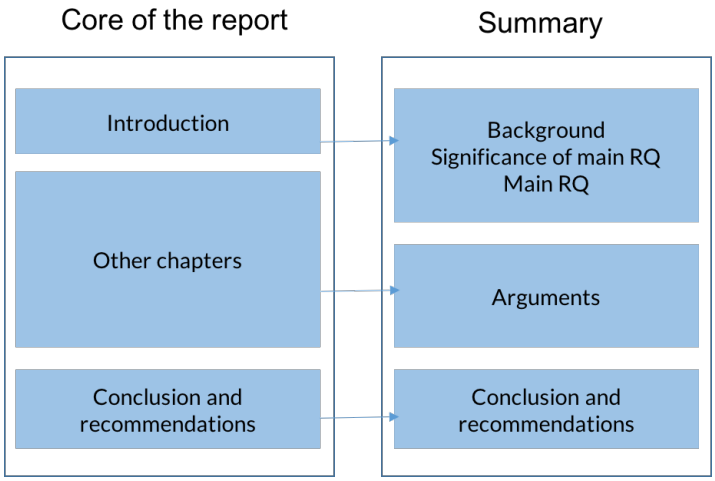

Figure 2 Relationship between the chapters in the report and the summary (Adapted from *Writing reports for reader with little time*, Elling et al.)

The *introduction* provides the reader with the main question that was addressed, how the research was done and why. So the WHY, HOW and WHAT of the report are briefly mentioned here.
The *core of the report* are the chapters with the content. Take the reader by the hand and briefly introduce each chapter. In some cases, e.g., when the chapter is long, it is advisable to end a chapter with a conclusion or summary. Provide a link between the chapters, so your readers will not get lost between the chapters or start wondering: 'Why is this all here?'
The *conclusion* is the most read part of many reports. The conclusion is not a summary! The conclusion should provide an answer to the research question. The conclusion should follow from the previous chapters, and should not contain new information. And your conclusion should be concise and independently readable.
Your *recommendations* should follow from the conclusions. The recommendations are in fact a translation from the conclusions into actions. The actions should be practicable and concrete, and specific.
Your *references* may only include sources (and all of them) that you have used in your report. The references should be listed consistently according to a certain style system, e.g., APA or Harvard. Examples of citations and references according to APA are listed on Brightspace, under [Study Guide].
If necessary, add *appendices* to your report. Appendices can help you to keep the core of the reports clear and concise. The core of the report, however, should be understandable without reading the appendices. The appendices provide more in depth information for those readers that are interested in more detail. The appendices should also be independently readable, so provide enough information for the reader to understand the appendix.

8 THE WORKSHOPS: COLLABORATION IN TEAMS

8.1 Overview of Collaboration in Project Teams

8.1.1 Why Collaborate?

Collaborating is a popular subject in the construction industry as well as in research. If you don't collaborate, you are not up-to-date, to say the least. However, working in teams in not simple and from a group dynamics point of view collaboration is not always successful: collaboration or teamwork can lead to bad decisions (groupthink), decreased productivity, demotivated team members and increased coordination costs - as compared to working alone.
So why do we need to collaborate? The answer is, that we need to collaborate when it is not possible to reach our goals alone. This will always be the case in large (construction) projects, design, consultancy assignments and in the management of large infrastructure assets systems.

8.1.2 Intra- and Intergroup Collaboration

Many construction projects require that organisations work together. These organisations can have alliances with each other; we call this kind of collaboration intergroup collaboration. In the CME-Cornerstone Process Management the focus is on external or intergroup collaboration. The course CME1200 focuses on the other kind of collaboration: **intragroup collaboration**: collaboration within the team. This is the way group dynamics looks at teams. Group dynamics studies the way people collaborate in teams. After your CME study you will likely be employed in a construction company, government agency, consultancy company or any other organisation that will use project teams as their main way of organising. A project team is a special kind of team that is characterised by: bounded time (the team dissolves as the project is finished) and the one-time and unique goal that is formulated. The teams consist of people with different characters, different personal priorities and goals. This will not only be the case in project teams but also in management teams and productions teams for example.

8.1.3 Keys to Collaboration

A good team focuses on three topics:

- Results - the task orientation of the team
- Building and maintaining the team - the relation orientation of the team members
- Individual development – the personal orientation of each team member

During the workshops in the course CME1200 we will pay attention to these three topics. The first workshop "Partnering Charter" deals with the desired results of the team and defines the building blocks of the collaboration. The second workshop "Belbin team roles" attends to both further building the team and individual development. The third workshop discusses the interpersonal circumplex (also called

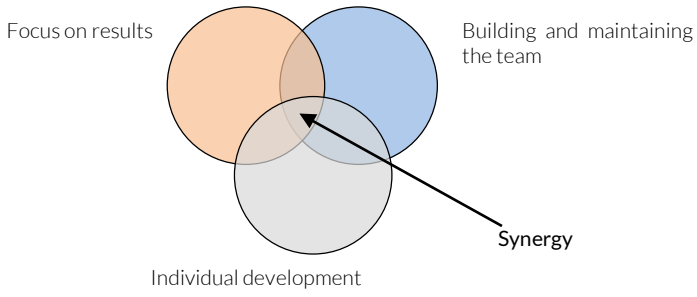

Figure 3 Three aspects of building teams (Adair, 2009)

Leary's Rose), in which individual development and team maintenance is at stake.

In the reflection assignment you will also reflect upon these three items and other aspects related to group dynamics. The others aspects will be addressed in one or more lectures. You can read about the personal development of your leadership, using Hersey & Blanchard's Situational Leadership Model. Paying attention to the aspects that improve the collaboration within the team is part of the teambuilding. Teambuilding is not just having a good time together somewhere away your workplace, but a meaningful and structured way of increasing the results of the team.

8.2 Partnering Charter – Workshop I

When you adopt a partnering approach you agree from the beginning that all team members commit themselves to a collaborative approach and teamwork and to avoid adversarial confrontation.
The starting point for the partnering process is a workshop (or more) where all team member meet together to develop a partnering charter. A partnering charter (also called: partnering statement) is a description of the commitment you reach between you and your project members. The partnering charter describes this commitment with what you agree on in the key areas. These key areas can be seen as the design and process parameters of your collaboration:

- Communication
- Collaboration and integration
- Decision-making and problem solving

These key areas are sometimes summarised as **norms**. These norms are not interesting on their own. The norms you choose depend on the goals and the level ambition. That's why any group should start with formulating its goals and ambitions.
A good partnering charter pays attentions to all three key areas and the goals and level of ambition and recognises potential problems items might hinder the collaboration.

When developing a partnering charter, you should start with deciding on the goals and ambitions. Next with the three key areas in mind you start developing statements that demonstrate commitment to each area. To prevent the statements from being 'just words' continuously consider how you can make these statements be active of live within your team.
The paragraphs below give you some guidance on developing the statements for the ambition, each key area and the potential problems.

8.2.1 Ambitions

The ambitions describe the aspirations of the team and its individual members and what the team and you as an individual member intend to achieve. The following items can help you formulate your ambitions:

- Level of ambition
  - Are we satisfied with *satisfactory*, *good* or should the result be *excellent*?

> The level of ambition should be as smart as possible and should be defined as the intended final grade for the group assignment

- Team mission statement
  - Describe on a high level "Why are we here?"
  - Make sure it is valued as inspiring by all of your team members
- Goals
  - Describe a clear view of the goal of the team

- Core values
  - Which core values do you team members embrace?
    For example: trust, openness, honesty, integrity, reliability and enjoyment.

8.2.2 Key Areas

Three key areas of norms in groups can be distinguished:

- Communication
- Collaboration and integration
- Decision-making and problem solving

The following list gives some examples of norms that can be discussed and possibly included in your partnering charter:

Make sure that your statements are active statements.
The statements include at least a verb and a noun.
E.g., *We will react promptly to each other's requests*

Communication.
Think about:

- Attendance at meetings:
  - Who, what, when where, effectiveness, preparations, minutes?
- Response and initiation:
  - How quickly, taking initiative and not wait for action?
- Openness
  - Share information, discuss difficult issues?

Collaboration and integration
Think about:

- Co-location:
  - Joint workplaces, working sessions?
- Joint initiatives:
  - Celebrate success?
- Team composition
  - Open for discussion about roles and tasks?
  - Open for discussion about strengths and weaknesses?[1]

Decision-making and problem solving
Think about:

- Problem resolution process:
  - Transparency, involvement, effectiveness?
  - Aimed at fault finding, at continuous improvement?
- Timely decisions:
  - Timeliness, quality, open-ended?

8.2.3 Potential Problems or Risks

Potential problems or risks should be discussed in the process of making the partnering charter. Managing these risk should be part of the risk management of your team and of course part of your project management plan. In the partnering charter you agree on your approach to potential problems. Do not give a list of the potential problems but give a statement on how you want to

[1] Here you might refer to the available tests, such as: Belbin, Leary and Lencioni

deal with the problems. What are potential harming factors to your collaboration? What may be the impact? How can you anticipate them?

A partnering charter may not resolve all issues encountered during your project, but it does create a starting for communication, team integration, decision-making and problem solving. It is important to keep your partnering on track throughout the project and make time to measure your success along the way. The statements on the key areas are the items that you can discuss.

You can find examples of (real world) Partnering Charters on Brightspace and in Appendix A.

8.3 Belbin Team Roles - Workshop II

Sources:
Belbin, R.M., (1996), Management teams: why they succeed or fail. 1996, Oxford; Boston: Butterworth-Heinemann

8.3.1 Belbin Team Role Theory

Ever wondered why some teams just seem to work and others hit the rocks? When things don't work, it is obvious to all and it often has a profound effect on the people involved, as well as the project or objective to be achieved.

In the 1970s, Dr Meredith Belbin and his research team at Henley Management College set about observing teams, with a view to finding out where and how these differences come about. They wanted to control the dynamics of teams to discover if – and how – problems could be pre-empted and avoided. As the research progressed, the research revealed that the difference between success and failure for a team was not dependent on factors such as intellect, but more on behaviour. The research team began to identify separate clusters of behaviour, each of which formed distinct team contributions or "Team Roles".

A Team Role came to be defined as:" A tendency to behave, contribute and interrelate with others in a particular way."

It was found that different individuals displayed different Team Roles to varying degrees.

8.3.2 The Eight Team Roles

The first Team Role to be identified is the "**Plant**". The role was called this way because one such individual was "planted" in each team. They tended to be highly creative and good at solving problems in unconventional ways.

One by one, the other Team Roles began to emerge. The **Monitor-Evaluator** was needed to provide a logical eye, make impartial judgements where required and to weigh up the team's options in a dispassionate way.

Coordinators were needed to focus on the team's objectives, draw out team members and delegate work appropriately.

When the team was at risk of becoming isolated and inwardly-focused, **Resource Investigators** provided inside knowledge on the opposition and made sure that the team's idea would carry to the world outside the team.

Implementers were needed to plan a practical, workable strategy and carry it out as efficiently as possible.

Completer-Finishers were most effectively used at the end of a task, to "polish" and scrutinise the work for errors, subjecting it to the highest standards of quality control.

Team workers helped the team to grow, using their versatility to identify the work required and complete it on behalf of the team.

Challenging individuals, known as **Shapers**, provided the necessary drive to ensure that the team kept moving and did not lose focus or momentum.

Belbin also introduced a ninth team role, the **Specialist**. We find this confusing because in almost every team the Specialist is a role that each team member should conduct, regardless of his/her other roles.

8.3.3 Balance Is Key

Whilst some Team Roles were more "high profile" and some team members shouted more loudly than others, each of the behaviours was essential in getting the team successfully from start to finish. The key was balance. For example, Belbin found that a team with no Plant struggled to come up with the initial spark of an idea with which to push forward. However, once too many Plants were in the team, bad ideas concealed good ones and non-starters were given too much airtime. Similarly, with no Shaper, the team ambled along without drive and direction, missing deadlines. With too many Shapers, internal fighting began and morale was lowered.

8.3.4 Strengths and Allowable Weaknesses

As well as the strength or contribution they provided, each Team Role was also found to have an "allowable weakness": a flipside of the behavioural characteristics, which is allowable in the team because of the strength which goes with it. For example, the unorthodox Plant could be forgetful or scatty; or the Resource Investigator might forget to follow up on a lead. Co-ordinators might get over-enthusiastic on the delegation front and Implementers might be slow to relinquish their plans in favour of positive changes. Completer-Finishers, often driven by anxiety to get things right, were found to take their perfectionism to extremes. Team workers, concerned with the welfare and morale of the team, found it difficult to make decisions where this morale might be compromised or team politics, involved. Shapers risked becoming aggressive and bad-humoured in their attempts to get things done.

8.4 Interpersonal Circumplex – Workshop III

Sources:
Gurtman, M.B., (2009), *Exploring Personality with the Interpersonal Circumplex*, Social and Psychology Compass, 3 (10)
Leary, T., (1957), Interpersonal diagnosis of personality; a functional theory and methodology for personality evaluation, Resource Publication: Eugene, OR.

8.4.1 Introduction

It is impossible not to communicate. Each of you will constantly communicate signals, either verbally or non-verbally. More than you hope or think of these signals is received by the other. The other will always give meaning to your signal and will always, even despite efforts to hide it, somehow show the reaction to your signals. Every message that you convey to the other will always contain some information, beside the content, about the relationship between you and the

other. The other will, knowingly or unknowingly, implicitly or explicitly react to this relationship information. This process is called interpersonal behaviour. Already in 1957 Timothy Leary developed an interaction behaviour theory that demonstrated a strong and consistent interdependency of behaviour between people. Based on his research Leary created interpersonal circumplex model for assessing interpersonal behaviour, motives and traits. Basically, this interpersonal circumplex is a two-dimensional representation of interpersonal needs, values, problems and traits. Figure 4 shows an example of an interpersonal circumplex. The circle is formed by two main dimensions:

1. the degree of dominance versus submissiveness - vertical axis
2. the degree of hostility versus friendliness - horizontal axis

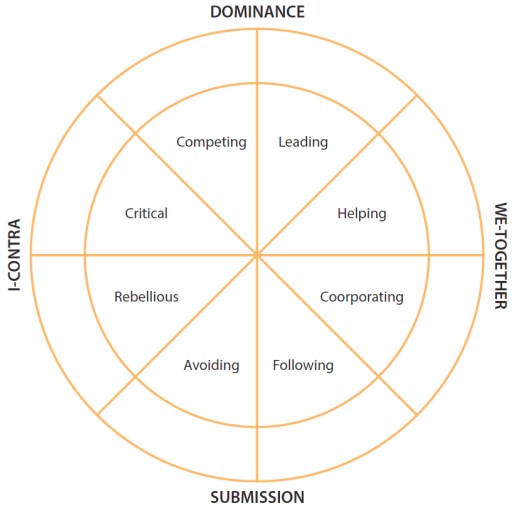

Figure 4 Leary's Rose or Interpersonal Circumplex

The vertical axis (dimension) can also be described as the degree of control, influence and dominance. The horizontal axis then refers to the dimension of intimacy and affection. The circle is further divided in eight generic constructs, that are in line with their position in the circle. Behaviour along the four main dimensions of behaviour shows certain characteristics.

Dominance (or Above)

- taking initiative
- making choices
- leading
- wants to influence others
- wants to control, structure

Submission (or Below)

- wants to be led
- waiting to be said what to do
- dependent
- waiting for approval
- waiting for others to take the initiative

This dominant or submissive calls for a reaction. The reaction can either be more cooperative or more against.

Hostile (I-contra)

- focused on self interest
- wants to work individually
- wants to convince others

- focuses on content
- introvert

Friendly (We-together)

- focuses on mutual interest
- wants to cooperate, collaborate
- values the relationship
- focuses on the process
- wants to consult others

These behaviours occur in various degrees. There is no absolute right or wrong in each of these behaviours. The model in Figure 4 is also called "the Rose of Leary". Many versions of this model circulate. The main difference between them is often the level of detail in the behaviour. The principle does not change.

In this Rose of Leary four main types of relationship definitions can be defined (at 45°, 135°, 225° and 315° degrees – with 0° degrees being the We-together point):

45° Above – Together
I am leading, collaborative and want the other to follow

135° Above – Against
I am leading, opposing the other and want recognition and respect

225° Below – Against
I dependent, distrustful and want to be left alone

315° Below – Together
I am dependent, collaborative and willing to follow

Leary showed that certain behaviour evokes certain behaviour, so called behavioural interaction patterns. People tend to react automatically, either in a similar (symmetry) way or complimentary way:

Symmetry

Showing *Together* behaviour leads to *Together* behaviour and *Hostile* behaviour will evoke *Hostile* behaviour of the other.

Complementary

Dominant behaviour will call for a *submissive* reaction and showing *submissiveness* will lead to *dominant* behaviour of the other. The patterns of complementarily are shown in Figure 5.

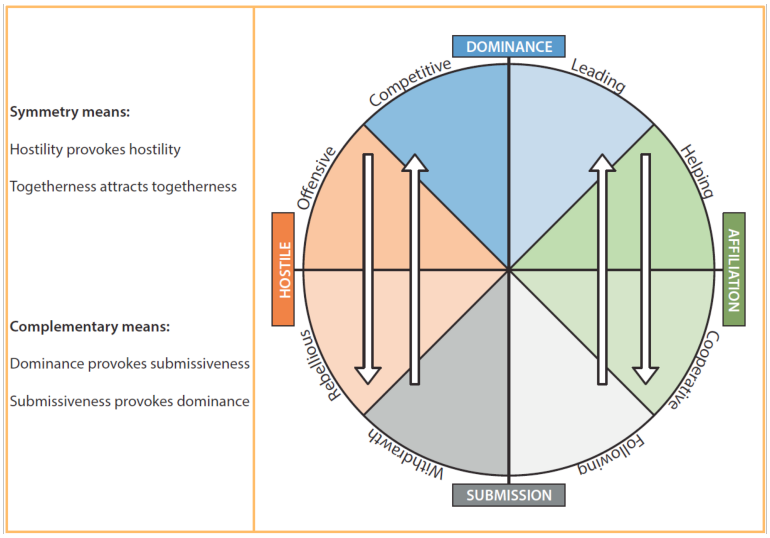

Figure 5 Leary's Rose – behavioural pattern of interaction

Active interventions

The added value of the model in daily practise lies in the awareness of these automatic responses to behaviour. By consciously choosing certain behaviour, you can positively influence the other eventually to get the best out of your collaboration. If you or other team members end up in a hostile situation, this hostility (or conflict) will remain as long as there is no change of behaviour.
Bearing in mind the symmetry of complementary interaction patterns, you can now actively intervene. You can actively change your position in the circle. Influencing another begins with yourself. Let that be your perfect starting point for personal leadership. But you can do more. You can try to find out for yourself what your prevalent position is. The online Leary's Rose test will help you with this. See if you recognise this prevalent position in your day to day behaviour and consider whether you are satisfied with the results or not. Be aware that you too are human and that you too are subject to automatic interaction patterns. And last but not least actively engage in changing positions when you realise the interaction in a certain relationship in a certain situation is not working.

> Main lesson learned?
> Influence others? Start with yourself!

> Also interesting to read about personal effectiveness?
> *The 7 Habits of Highly Effective People*, by Stephen Covey, available in many versions

8.5 Situational Leadership

Sources:
Blanchard, K.H., Hersey, P., Johnson, D.E. (2008), Management of Organizational Behavior, Prentice Hall

The Situational Leadership theory from Hersey & Blanchard is a contingency approach to leadership that links the leader's two-dimensional style with the task maturity of subordinates. The idea behind this theory is that when a leader is able to adapt to the situation, everyone will benefit. The two-dimensional style is based on the amount of relationship behaviour (supportive dimension) and task behaviour (directive dimension) that a leader provides in a situation. Task behaviour is the degree to which a leader spells out to followers what to do, where to do it, and how to do it. Leaders who use task behaviour structure, control, and closely supervise the behaviours of their followers. Relationship behaviour is the degree to which a leader listens, provides support and encouragement, and involves followers in the decision-making process.
Situational Leadership models became popular around the 1980's. At that time leadership was perceived as a trait, and most models were personality-based. Research focused on the characteristics of the ideal leader. Hersey & Blanchard (and Blake & Mouton with the "Leadership Grid" before them) proposed something different. The 'right' leadership style in their model depends on the maturity level of the team members.
People low in task maturity, because of little ability or training, or insecurity, need a different leadership style than those who are highly mature and have good ability, skills, confidence and willingness to work.
The relationships between leader style and task maturity are summarised in Figure 6.

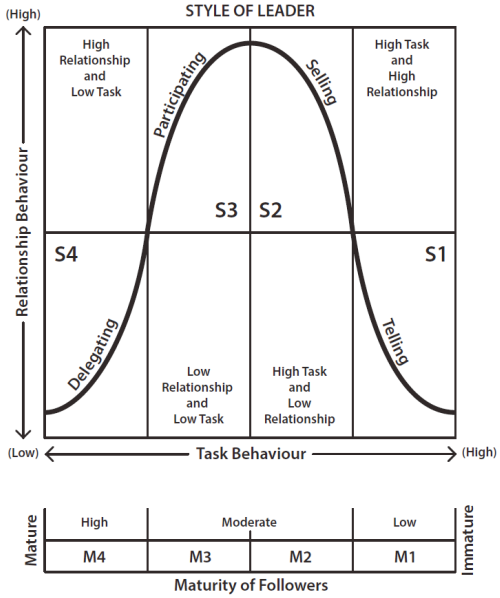

Figure 6 Hersey and Blanchard Leadership Model

8.5.1 Leadership Styles

According to Hersey and Blanchard, there are four main leadership styles:
Telling (S1)
Leaders tell their people exactly what to do, and how to do it.
Selling (S2)
Leaders still provide information and direction, but there's more communication with followers. Leaders "sell" their message to get the team on board.

Participating (S3)
Leaders focus more on the relationship and less on direction. The leader works with the team, and shares decision-making responsibilities.
Delegating (S4)
Leaders pass most of the responsibility onto the follower or group. The leaders still monitor progress, but they're less involved in decisions.

As you can see, styles S1 and S2 are focused on getting the task done. Styles S3 and S4 are more concerned with developing team members' abilities to work independently.

8.5.2 Maturity Levels

According to Hersey and Blanchard, knowing when to use each style is largely dependent on the maturity of the person or group you're leading. They break maturity down into four different levels:

M1 – People at this level of maturity are at the bottom level of the scale. They lack the knowledge, skills, or confidence to work on their own, and they often need to be pushed to take the task on.

M2 – at this level, followers might be willing to work on the task, but they still don't have the skills to do it successfully.

M3 – Here, followers are ready and willing to help with the task. They have more skills than the M2 group, but they're still not confident in their abilities.

M4 – These followers are able to work on their own. They have high confidence and strong skills, and they're committed to the task.

To use this model, reflect on the maturity of individuals within your team. The Figure above shows which leadership style Hersey and Blanchard consider the most effective for people with that level of maturity.

> Interesting and fun to read?
> *The One Minute Manager* by Blanchard and Johnson, available in many versions

8.6 Team Effectiveness

Sources:
Lencioni, P., (2002), The Five Dysfunctions of a Team; A Leadership Fable, Jossey-Bass: San Francisco
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Teams do not just become high performing teams. It takes guidance, effort and support from all team members to attain a high level of team performance. To be able to do so requires knowledge of the factors that influence team performance.
Many models are in use to explain how teams work. Each of those models highlights aspects that are important for the performance or effectiveness of a team. To name a few models:

- Team effectiveness model, Hackman
    - Hackman states that teams are more likely to succeed when the team is a real team rather than just a collection of individuals. The team should have a structure that supports teamwork and should have a clear and attractive direction to work for. Two external factors are important. The team should be supported by the organisational context and expert coaching should be available.
- Focusing on Team Basics, Katzenbach and Smith
    - Katzenbach and Smith state that teams should focus on the collective work products, performance results and personal growth. This should be supported by by the factors that make it happen: commitment, skills and accountability.
- Five dynamics of teamwork and collaboration, LaFasto and Larson
    - LaFasto and Larson identify five fundamental dynamic elements that influence the effectiveness of teams. The elements are: team member, team relationships, team problem solving, team leadership and organisation environment. They describe how each element can be influenced to enhance team effectiveness.
- The five dysfunctions of a team, Lencioni
    - According to Lencioni all teams have the potential to become dysfunctional. Lencioni identified five dysfunctions that need to be understood before team performance can be improved. In the next paragraph, we will look a bit closer at the Lencioni model.

There is quite an overlap in aspects and criteria that these models refer to. In this reader, we limit ourselves to the model of Lencioni and show a way to measure the effectiveness of your own team.

8.6.1 Team Effectiveness and Their Dysfunctions

The first step to effective teams is to understand what causes misunderstandings, confusion and low performing teams. Lencioni identified five dysfunctions and each dysfunction has to be addressed separately, see Figure 7. The Figure is comparable to Maslow's pyramid or hierarchy of needs. Each lower level in the pyramid must be completed before moving on the one above.

Figure 7 Dysfunctions of a Team

1. **Absence of Trust**
   The main cause of the absence of trust lies with team members that are unable to show their weaknesses, are unwilling to admit their mistakes and are reluctant to be vulnerable with one another. The absence of trust leads to defensive behaviour and inefficiencies. In the way of this trust stands the behaviour of team members that strive to create an image of invulnerability. Without a certain comfort level among team members, a foundation of trust is impossible. In one of the lectures we will discuss the concept of trust in more detail.
2. **Fear of Conflict**
   Teams that lacking trust are in a state of artificial harmony. Team members are fearful of openly sharing their opinion. This causes situations where members avoid discussion, potential conflicts are not solved but keep lingering. Talk between team members is in the background. Meetings become boring and issues drag on and good ideas are not vented for fear of being rejected. Debate among team members needs to promoted.
3. **Lack of Commitment**
   In a state of artificial harmony with veiled discussions team members will find it hard to commit to vague decisions. This creates an environment of ambiguity and indecisiveness. Because of a lack of decisions, unsolved matters keep returning. Team members lose their enthusiasm and do not commit themselves to ambiguous goals and team targets. Team members must strive for clarity and closure of any matters that come to the table.
4. **Avoidance of Accountability**
   When a team or its team members don't commit to a clear plan of action, team members will hesitate address others on their actions, inactions or behaviour. However, when a team has a clear plan of action (or project management plan) the members can and will hold each other accountable. It is not all up to the leaders to do so, and the leader doesn't have to be the only one doing that. The leader has to confront difficult issues are left to the leader.
5. **Inattention to Results**
   Unaccountability will give room for team members to put their own needs (ego, career development, recognition, etc.) ahead of the collective goals of the team. Unclear goals have the unclear results; the definition of a clear, achievable goal will focus the attention on the results.

8.6.2 Measure Your Team Effectiveness Using a Simple Questionnaire.

Using the scale below, indicate how each statement applies to your team. Please briefly evaluate the statements without over-thinking your answers.

3 = Usually 2 = Sometimes 1 = Rarely

Score		Statement
____	1.	Team members are passionate and unguarded in their discussion of issues.
____	2.	Team members call out one another's deficiencies or unproductive behaviours.
____	3.	Team members know what their peers are working on and how they contribute to the collective good of the team.
____	4.	Team members quickly and genuinely apologize to one another when they say or do something inappropriate or possibly damaging to the team.
____	5.	Team members willingly make sacrifices (such as budget, turf, head count) in their departments or areas of expertise for the good of the team.
____	6.	Team members openly admit their weaknesses and mistakes.
____	7.	Team meetings are compelling and not boring.
____	8.	Team members leave meetings confident that their peers are completely committed to the decisions that were agreed on, even if there was initial disagreement.
____	9.	Morale is significantly affected by the failure to achieve team goals.
____	10.	During team meetings, the most important—and difficult—issues are put on table to be resolved.
____	11.	Team members are deeply concerned about the prospect of letting down their peers.
____	12.	Team members know about one another's personal lives and are comfortable discussing them.
____	13.	Team members end discussions with clear and specific resolutions and calls to action.
____	14.	Team members challenge one another about their plans and approaches.
____	15.	Team members are slow to seek credit for their own contributions, but quick to point out those of others.

Scoring

Combine your scores for the preceding statements as indicated below.

Dysfunction 1: Absence of Trust	Dysfunction 2: Fear of Conflict	Dysfunction 3: Lack of Commitment	Dysfunction 4: Avoidance of Accountability	Dysfunction 5: Inattention to Results
Statement 4: _____	Statement 1: _____	Statement 3: _____	Statement 2: _____	Statement 5: _____
Statement 6: _____	Statement 7: _____	Statement 8: _____	Statement 11: ____	Statement 9: _____
Statement 12: ____	Statement 10: ____	Statement 13: ____	Statement 14: ____	Statement 15: ____
Total: _____	Total: _____	Total: _____	Total: _____	Total: _____

A score of 8 or 9 is a probable indication that dysfunction is not a problem for our team.
A score of 6 or 7 indicates that the dysfunction could be a problem.
A score of 3 to 5 is probably an indication that team dysfunction needs to be addressed.
Regardless of your scores, it is important to keep in mind that every team needs constant work, because without it, even the best ones deviate toward dysfunction.

8.6.3 What Are the Possible Remedies?

Based on the results of the test and the discussion that followed it, team members can make specific agreements on how to improve the team effectiveness.
Examples of specific agreements are in the table 6.

Table 6 Suggestions to fight dysfunctions

Dysfunction	Suggestion for improvement
Absence of trust	- Meet and greet exercises - Feedback exercises - Team building activity - Use of Belbin, MBTI or other tests
Fear of conflict	- Conflict resolution exercise - Giving feedback
Lack of commitment	- Making minutes, actions lists - Creating deadlines for decisions - Discuss worst case scenarios
Avoidance of accountability	- Use team rewards, celebrate success - Make team goals public, use of a PMP - Regular progress meetings
Inattention to results	- Make team results public - Performance based rewards

8.7 Further Reading in The Field of Group Dynamics

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PART III – GROUP ASSIGNMENT

9 GROUP ASSIGNMENT

9.1 Introduction of The Group Assignment

9.1.1 General information of the Delta Programme

The Netherlands is the best-defended delta in the world. But how can we make sure that now and in the future, the Netherlands remain safe and with a sufficient supply of fresh water? And how can we keep the Netherlands an appealing place to live, to work and to invest?
The measures that need to be taken have been prepared and elaborated in the Delta Programme. (Deltaprogramma). The Delta Programme is a national programme in which the national government, provinces, municipalities, water boards, social stakeholders, the industry and universities collaborate. Generic information on the Delta Programme can be found on (in Dutch): http://www.rijksoverheid.nl/onderwerpen/deltaprogramma.

9.1.2 Specific Information Delta Programme and The Oosterschelde

Part of the entire Delta Programme is the south-western delta of the Netherlands. A specific part of the programme focuses on the long-term exploration in this delta: Stuurgroep Zuidwestelijke Delta. Generic information can be found on (some of it in English): http://zwdelta.nl/. The Oosterschelde is centrally situated in this south-western delta, see Figure 8 and 9. The Oosterschelde used to be open water with a direct link to the sea and to the rivers. Compartimentalisation closed off the rivers from the Oosterschelde area and on the seas-side the Oosterschelde Storm Surge Barrier was taken into operation in 1986.

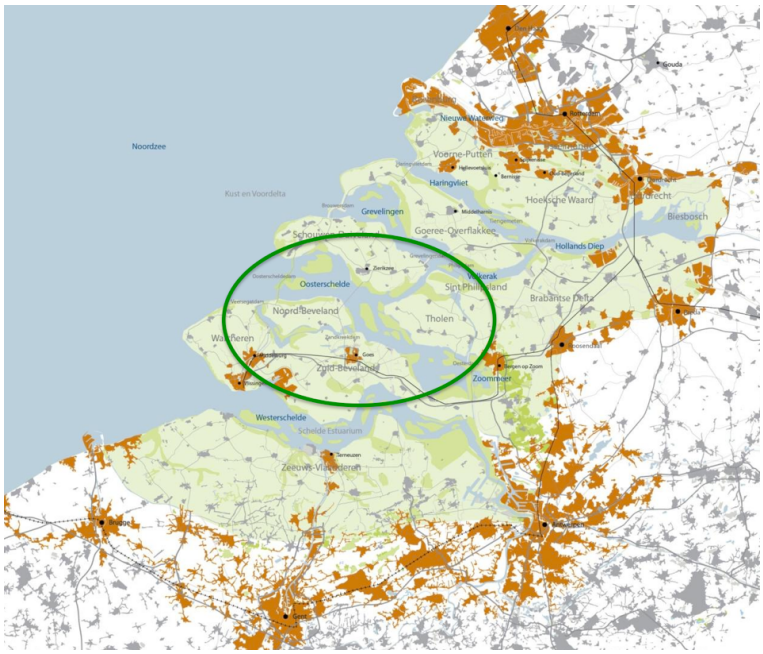

Figure 8 The Oosterschelde and the hinterland.

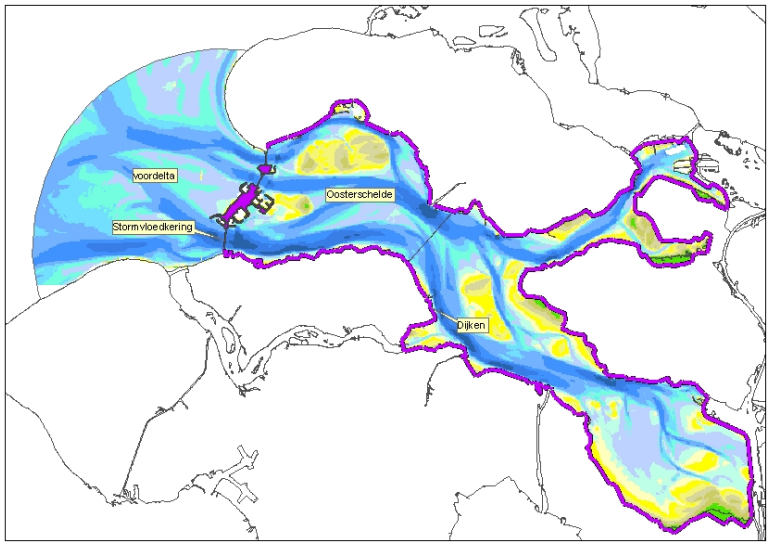

Figure 9 Oosterschelde estuary.
In purple the dykes and dams, changing colours from dark blue to green shows the locations of channels, trenches and salt marshes and tidal flats.

For the present-day and from a safety perspective, the management regime of the Oosterschelde is satisfactory. But it is most probably not satisfactory for tomorrow. Climate change and sea level rise will challenge the Oosterschelde and may lead to necessary adjustments in the management regime or more. Also, longer-term effects of the present-day regime, like sand-hunger, are showing and together with changing conditions, like the pressure on spatial use, call for action.
The question is, however, 'When, where and what needs to be done?'

What the Oosterschelde needs is a long-term strategy aimed at safety and a strategy that also contributes to fighting erosion and to economic use of the area. Guiding principles are: sufficient protection, economic vitality and ecological resilience.

The safety system of the Oosterschelde consists of dykes around the island, dams and a storm surge barrier. In normal weather conditions the Oosterschelde remains an open water, with a reduced tidal flow and no river water entering the basin. The dykes prevent the surrounding islands from flooding. By building the barrier it was possible to limit the length of the dykes, which otherwise had to be strengthened to prevent flooding of the hinterland during periods of high sea levels. In case of a storm or high sea water level the Oosterschelde Storm Surge Barrier will be closed.

The economic importance of the Oosterschelde is mainly shipping and fishery. The Oosterschelde is also a valued recreational area, frequented by yachts, sailboats, divers, and nature enthusiasts.

The Oosterschelde is an important nature area, a National Park. The area has mussel and oyster areas, sea grass areas and salt marshes. The tidal flats are important feeding grounds for birds.

9.2 The problem of The Oosterschelde Region

Due to adversarial effects, changing climate conditions and new demands it seems unlikely that in the longer run continuation of the present management regime of the Oosterschelde will be sufficient to maintain the safety of the hinterland. See Figure 10 for a map of the unsafe situation

as foreseen in 2100. That means that a new long term management regime is needed in which safety is central and the ecological uniqueness and economic vitality of the Oosterschelde area are taken into account.

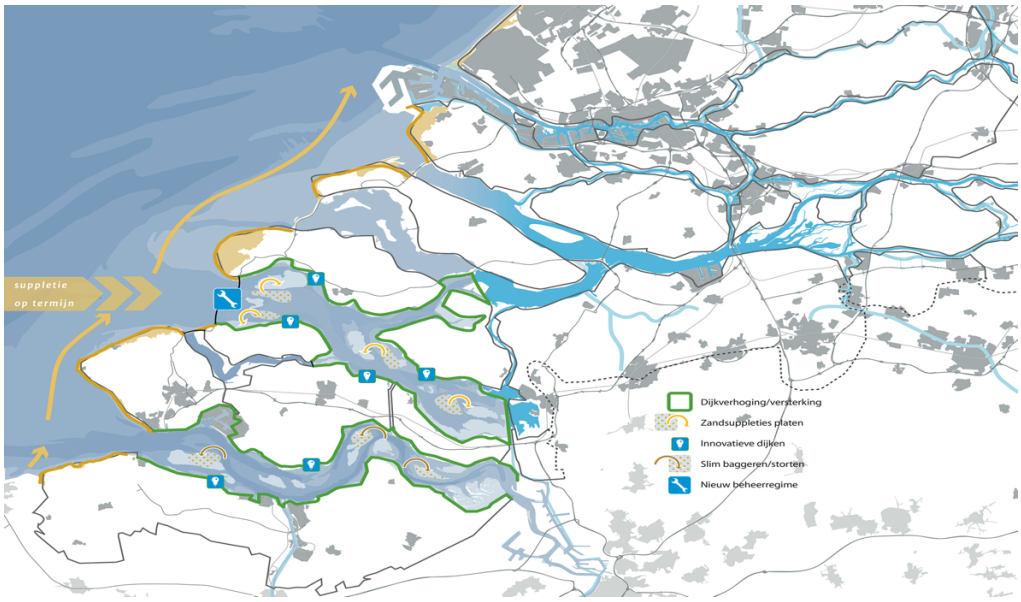

Figure 10 The unsafe situation as foreseen in 2100

In broad brush, the direct causes that call for action are:

1. Adversarial effects caused by the Oosterschelde barrier and compartmentalisation dams Philipsdam and Oesterdam:
   - Intertidal areas are disintegrating due to reduced tidal flows
   - Diminished carrying capacity for shellfish cultures
   - No estuarine gradients with its effects on natural values
2. Changing environmental circumstances:
   - Sea level rise
   - Possible changes of wind direction, force and frequency of storms
3. New demands:
   - Periodical storage of river water in the Delta when a high sea coincides with high river water flow

New sea level rise scenario's may call for earlier action by Rijkswaterstaat and other stakeholders in the Oosterschelde area. The present policy of Rijkswaterstaat is based on a sea level rise of 85 cm in 2100. More progressive scenarios predict a higher sea level rise in 2100.
Though officially not yet adopted as a basis for policy making by Rijkswaterstaat, we want you to use the following scenario:

Sea level rise: 50 cm in 2050
Sea level rise: 200 cm in 2100

There are even worse scenarios mentioned by different institutions, but for this assignment we will use the sea level rise mentioned above. And, remember, the sea level rise won't stop in 2100.

The intention of Rijkswaterstaat is to continue the present management of the Oosterschelde system as long as possible, this implies to continue operating, maintaining, and if necessary adapting, the present storm surge barrier.

9.3 What Has Been Done in The Previous Years?

In parallel with this course, the Delta Programme has been developing favourable strategies based on possible strategies to cope with the problems in 2013 as shown by the planning below:

1. Plan of Approach 2011
2. Problem analysis and urgency 2012
3. Possible strategies 2013
4. Favourable strategies 2014
5. Preferred strategy and decisions 2015
6. Elaboration of preferred strategy 2016
7. Adaptation of current strategy 2017 and 2018

De course CME1200 has followed the planning of the Delta Programme and is always one year ahead. In 2012 the group assignment dealt with the problem analysis and urgencies, leading to possible strategies to deal with the long-term challenges. The 2013 group assignment focused on designing realistic strategies based on the outcomes of the Delta Programme of 2012. The results were favourable strategies. In 2014 the groups continued work on the preferred strategy. The results of the Delta Programme in that year was that the current strategy of the Oosterschelde should be continued with adaptations when needed. That was the starting point for the groups in 2015.

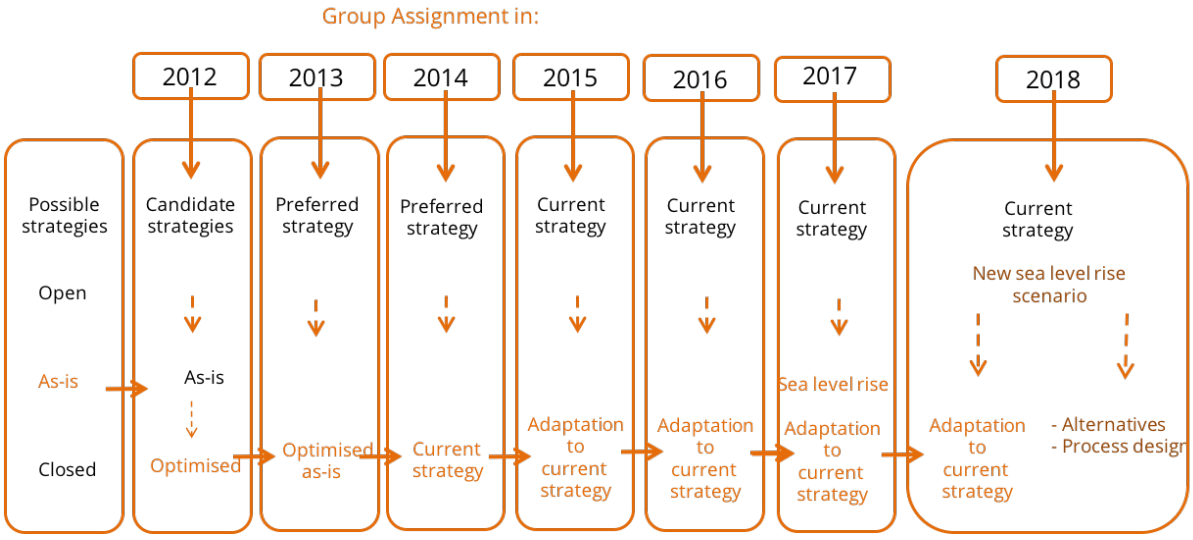

Figure 11 Overview of group assignment 2012 - 2018

Now in 2018, we take the process another step further and we go to step 7: Adaptation of the strategy. Rijkswaterstaat wants to continue of the current strategy as long as possible. The questions is: 'For how long, and what adaptation are needed once the current strategy is not meeting the goals?" This means that checking and fine-tuning this strategy, looking for tipping-points, designing possible adaptations and determining the relevant stakeholders for implementation, while at the same time balancing safety with the ecological uniqueness and economic vitality of the region.

An important emphasis in 2018 is in finding possibilities to prolong the use of the present barrier as long as possible and find the right moment (tipping point) to switch to an alternative.

9.4 Oosterschelde Assignment: Research Question

9.4.1 Problem, Goal, Research question

The generic problem for the Oosterschelde (region) is that in the long term (2100-2200) the present (current) management strategy will not live up to safety, environmental, economic and ecological demands. This is exacerbated by the scenario for sea level rise that you have to use.

The goal of each group is to find a realistic solution for the management regime to make sure the Oosterschelde will live up to the safety, environmental, economic and ecological demands in the long term (2100 – 2200). This solution has to take the current strategy as a starting point and maintain that strategy as long as possible.

Based on the assumption that in the long term the current strategy will not be sufficient, this leads to the following research question:

> After continuing the current strategy as long as possible, what adaptations need to be implemented to make sure the Oosterschelde will live up to the standards for safety while safeguarding the environmental, economic and ecological demands in the long term (2100 – 2200)?

Bear in mind that when answering this research question:

> Both the physical measures and the governance process on how to achieve the required adaptation have to be part of the answer.

> The realistic solution may only be designed after a broad analysis of the current strategy and the stakeholders.

Special interest subjects

When designing the adaptations, special attention must be given to:

1. The Oosterschelde barrier – What specific changes are possible on the Oosterschelde barrier when the sea level rise will become more than 0,75 m?
2. The recreational hotspots – How well do your adaptations fit into the environment while maintaining the special character of the Oosterschelde area? See Figure 12. Full size illustration plus English legend is available on Brightspace.
3. When appropriate incorporating sustainability issues, like the energy transition (becoming energy neutral in 2030) in your solution for the Oosterschelde.

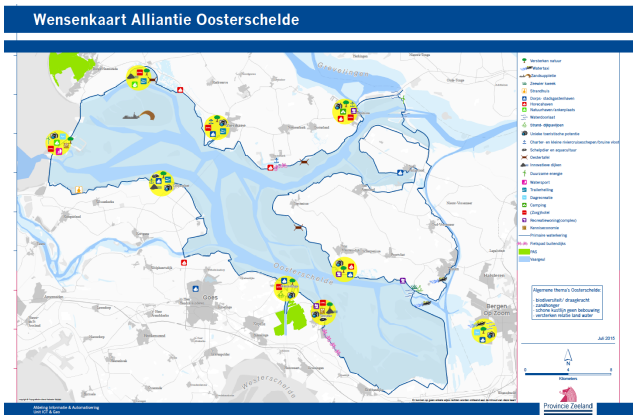

Figure 12 Recreational hotspot Oosterschelde (Prov. Zeeland)

9.4.2 Execution of the assignment

Each of the teams will work separately and in parallel on this assignment. Each team will act as a consulting agency and will be tasked with:

- Collecting the basic information and preconditions
- Making an inventory of present policies, goals and visions
- Analysing the problem
- Coming up with one or more several realistic solutions and the required governance process

This will be done in two phases as described below.

Phase I Orientation and Analysis

Week 4.1 – 4.4

In the first weeks, not only information has to be collected, but also a broad analysis of the Oosterschelde water system, the Oosterschelde Barrier, the current strategy and the interests of the parties involved has to be conducted.

> A site visit with introductions by Rijkswaterstaat is part of the first phase.

At the end of the second week a project plan has to be submitted, see chapter 4. Each team will do research by studying the available documents, Internet sources and conducting interviews with stakeholders. An introduction to the parties involved that the team can access will be presented on Brightspace. It is up to the teams themselves to plan, prepare and conduct the (mandatory) interviews.

> There is one important general condition concerning the stakeholders. Each stakeholder may only be approached once. This means that both teams will have to collaborate on (equally) sharing the access to the stakeholders and of course exchanging the information from the stakeholders.

The analysis should include a clear description of the problem(s) and a rough description (general) idea of the solutions for the problem(s). These adaptions to the current strategy need to be further designed in Phase II.
The results of the analysis (Phase I) will be presented to the lecturers and representatives from Rijkswaterstaat. Both the report and the presentation will be part of the Phase I assessment.

Phase II Synthesis and Design of (sustainable) adaptations

Week 4.5 – 4.8

After the presentation of the analysis, the synthesis and design of sustainable alternative solutions can start. This will mean that roles, tasks and focal points will have to be redistributed within the team. This (new) team will design the solutions for the problem that has been identified in Phase I.

> Apart from the physical details of the alternatives, the governance process on how to achieve the required adaptation is an important part of the final report.

> Also bear in mind the impact of the proposed new solution on the present day management and maintenance of the Oosterschelde (barrier). Bear in mind that the maintenance plans of the Oosterschelde barrier span several decennia.

Make sure that you take the opportunity to consult the specialists from Rijkswaterstaat, the Province of Zeeland or the Waterboard for your adaptations.

The results of the design phase will be presented to the lecturers and representatives from Rijkswaterstaat. Both the report and the presentation will be part of the Phase II assessment.

9.4.3 Importance Notice on the Assignment:

Keep in mind that the assessment of this assignment will take into account that this course is about *collaboration* and that the *process* is at least as important as the *result*:

1. Intragroup collaboration:
   Make sure that you come to a good design *together*: keep everyone on board.
2. Intergroup collaboration:
   Make sure that the interests of all stakeholders are in some way incorporated, not only demands and wishes for the future management regime but also the impact on their nowadays demands (e.g. maintenance) and the sustainability/feasibility of the new management regime.

9.5 More Information and Sources

> Note 1
> Because this is a Dutch case, unfortunately not all information will be available in English. Make sure that you strike a balance between native-Dutch and non-Dutch speaking students in the sub-groups that you create.

> Note 2
> Most of this information is available on the Internet. First check Brightspace for information that is already available there.

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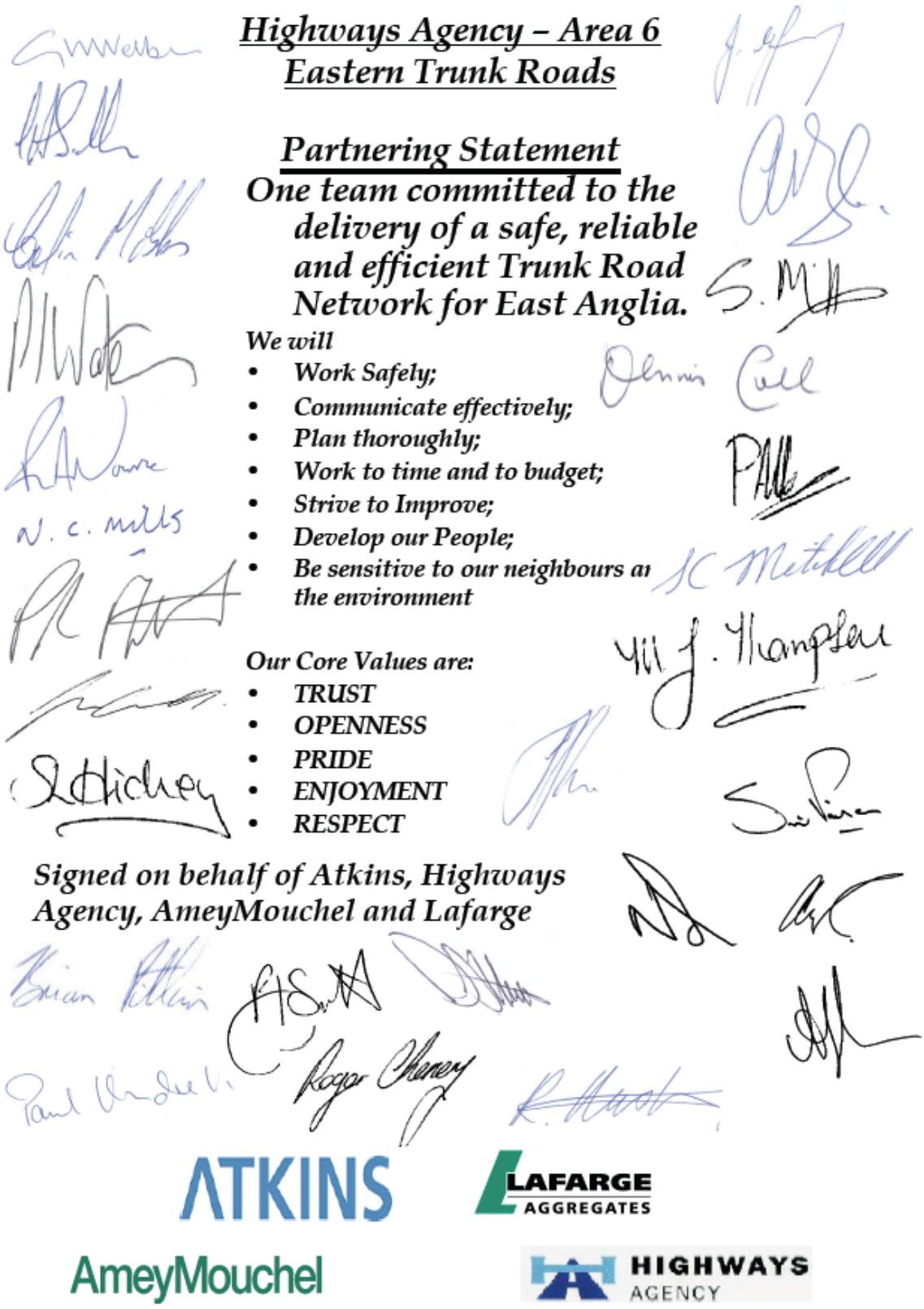
APPENDIX A – PARTNERING CHARTERS

Four examples of Partnering Charters



Highways Agency – Area 6
Eastern Trunk Roads

Partnering Statement
One team committed to the delivery of a safe, reliable and efficient Trunk Road Network for East Anglia.

We will

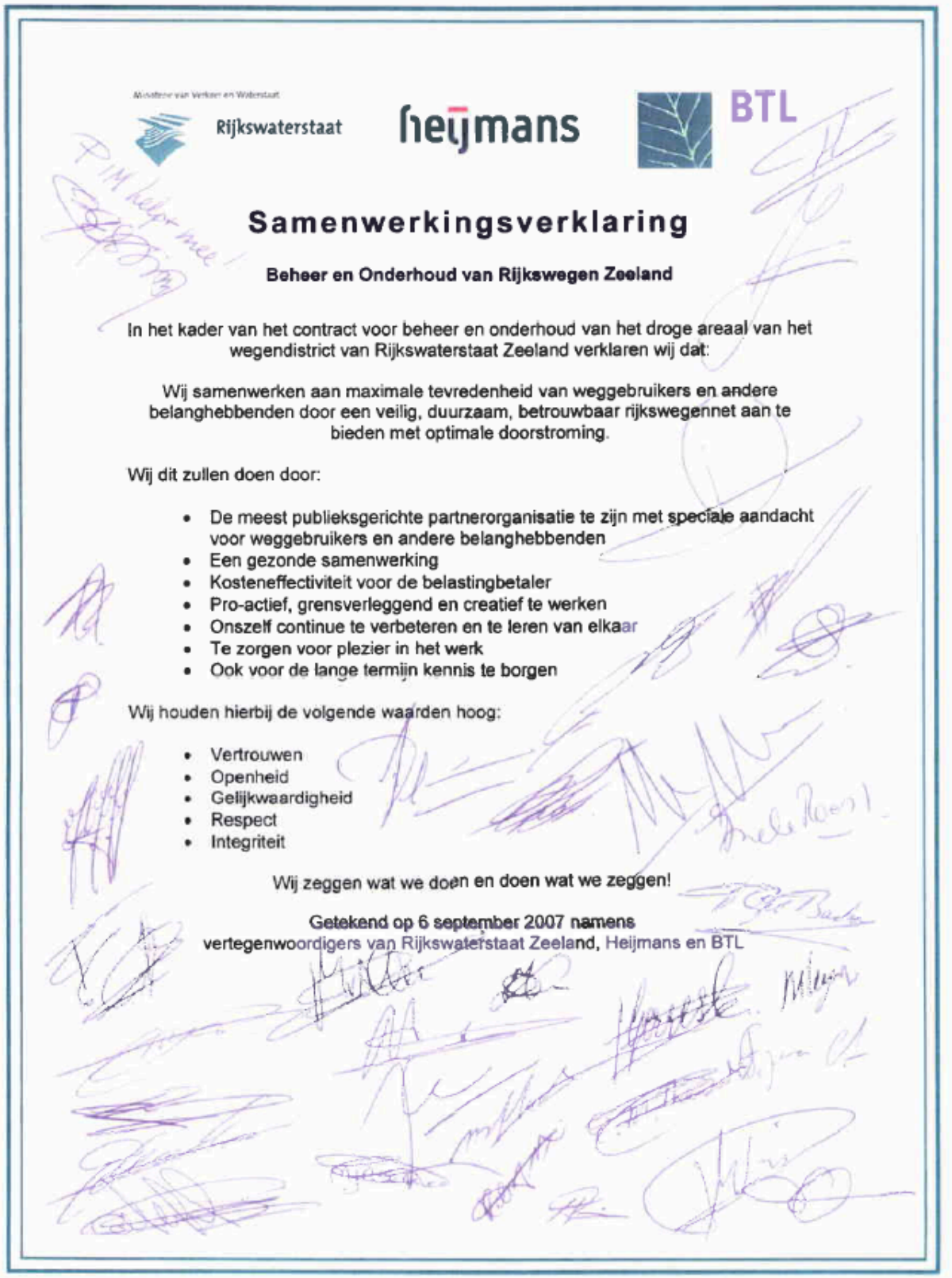
- *Work Safely;*
- *Communicate effectively;*
- *Plan thoroughly;*
- *Work to time and to budget;*
- *Strive to Improve;*
- *Develop our People;*
- *Be sensitive to our neighbours a the environment*

Our Core Values are:

- *TRUST*
- *OPENNESS*
- *PRIDE*
- *ENJOYMENT*
- *RESPECT*

Signed on behalf of Atkins, Highways Agency, AmeyMouchel and Lafarge

ATKINS
LAFARGE AGGREGATES
AmeyMouchel
HIGHWAYS AGENCY



Rijkswaterstaat heijmans BTL

Samenwerkingsverklaring

Beheer en Onderhoud van Rijkswegen Zeeland

In het kader van het contract voor beheer en onderhoud van het droge areaal van het wegendistrict van Rijkswaterstaat Zeeland verklaren wij dat:

Wij samenwerken aan maximale tevredenheid van weggebruikers en andere belanghebbenden door een veilig, duurzaam, betrouwbaar rijkswegennet aan te bieden met optimale doorstroming.

Wij dit zullen doen door:

- De meest publieksgerichte partnerorganisatie te zijn met speciale aandacht voor weggebruikers en andere belanghebbenden
- Een gezonde samenwerking
- Kosteneffectiviteit voor de belastingbetaler
- Pro-actief, grensverleggend en creatief te werken
- Onszelf continue te verbeteren en te leren van elkaar
- Te zorgen voor plezier in het werk
- Ook voor de lange termijn kennis te borgen

Wij houden hierbij de volgende waarden hoog:

- Vertrouwen
- Openheid
- Gelijkwaardigheid
- Respect
- Integriteit

Wij zeggen wat we doen en doen wat we zeggen!

Getekend op 6 september 2007 namens
vertegenwoordigers van Rijkswaterstaat Zeeland, Heijmans en BTL

Rijkswaterstaat
Ministerie van Verkeer en Waterstaat

Partnership Charter

GTI
GDF SUEZ

Netwerkgericht onderhoud Hansweert - Krammersluizen

NHK Contract Team – ZLD 6218

Ons gezamenlijke doel:

Samen werken, leren, groeien

Om dat doel te bereiken zullen wij:

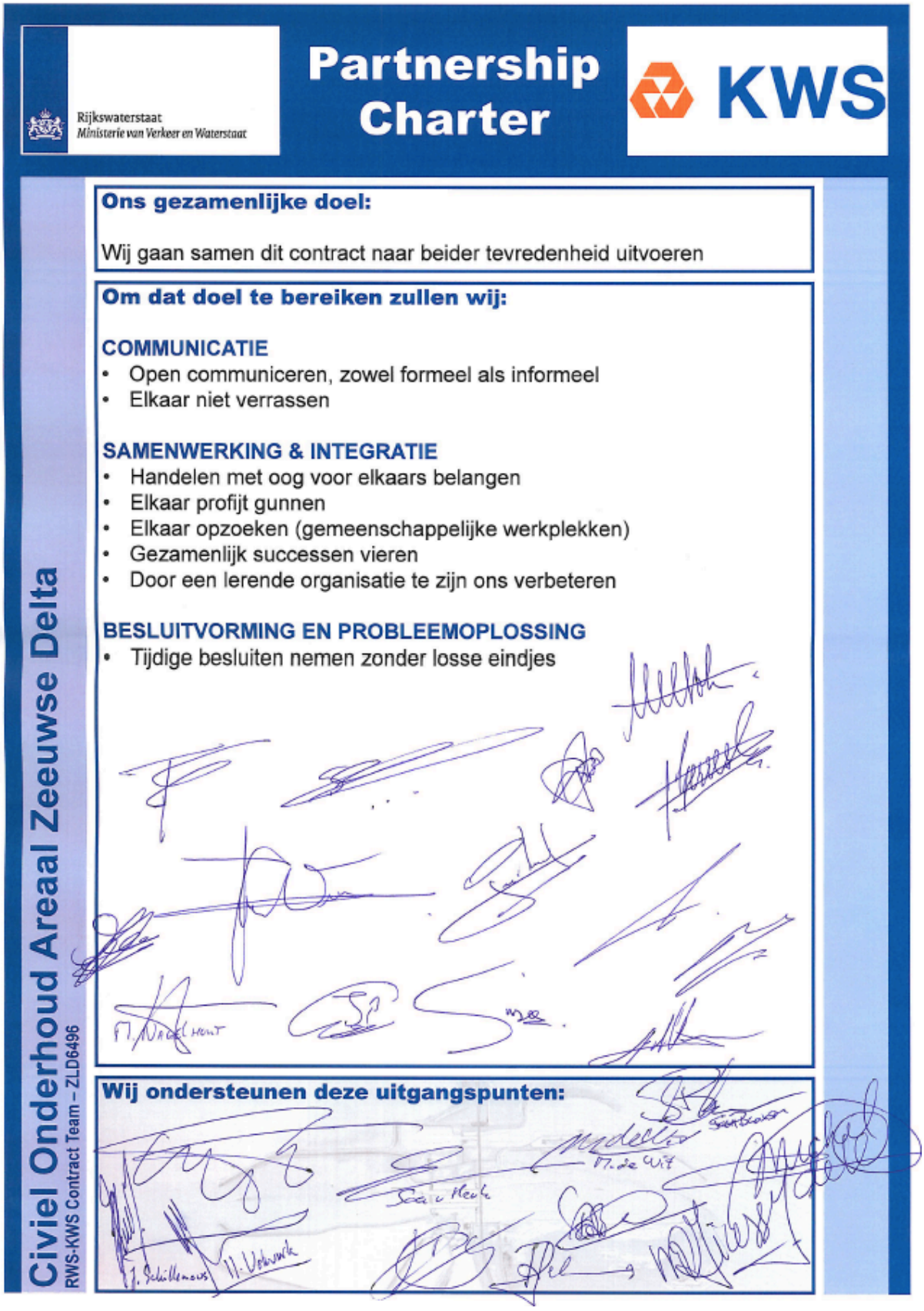
SAMEN
- Gezamelijk naar buiten treden
- Successen vieren
- Elkaar aanspreken en ons kwetsbaar opstellen
- Elkaar goed & tijdig informeren

WERKEN
- Elkaar tijdig zeggen wat we gaan doen (efficiënt)
- Doen wat we zeggen (effectief)

LEREN
- Elkaar aanspreken op gewoontes en gedrag (feedback)
- Elkaar opzoeken (gemeenschappelijke werkplekken)
- Best practices ontwikkelen, toepassen en delen

GROEIEN
- Risico's nemen
- Voortdurende constructieve feedback geven
- Elkaars vooroordelen bespreken

Wij ondersteunen deze uitgangspunten:


Rijkswaterstaat
Ministerie van Verkeer en Waterstaat
Partnership Charter
KWS
Civiel Onderhoud Areaal Zeeuwse Delta
RWS-KWS Contract Team – ZLD6496
Ons gezamenlijke doel:
Wij gaan samen dit contract naar beider tevredenheid uitvoeren
Om dat doel te bereiken zullen wij:
COMMUNICATIE
• Open communiceren, zowel formeel als informeel
• Elkaar niet verrassen
SAMENWERKING & INTEGRATIE
• Handelen met oog voor elkaars belangen
• Elkaar profijt gunnen
• Elkaar opzoeken (gemeenschappelijke werkplekken)
• Gezamenlijk successen vieren
• Door een lerende organisatie te zijn ons verbeteren
BESLUITVORMING EN PROBLEEMOPLOSSING
• Tijdige besluiten nemen zonder losse eindjes
Wij ondersteunen deze uitgangspunten:

APPENDIX B – PROGRESS REPORT

Progress Stage Report CME1200 - 2013	
Project	
Project manager	
Report Period	
Date	
Signed by	

Most important results and actions

[What has been done during the last week?]

- …
- …

Progress

[Are you behind, on, or ahead of planning, mention possible causes and actions taken?]

- …
- …

Challenges and possible problems that influence progress

[What are the challenges and problems you face, and esp. those that may need client intervention?]

- …
- …
- …

Planned actions in next reporting period

[What are the actions you having planned for the next week?]

- …
- …
- …

Risk management

[Are your risks and mitigating measures still valid and acceptable?]

- …
- …

NOTES