

*Privileged and Confidential*

# **Development of a generic GHG emissions calculator for natural rubber production of global application with user manual and virtual training workshop**

Proposal for  
**Michelin, SOCFIN & SIPH**



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Meo Carbon Solutions GmbH  
Hohenzollernring 72, D-50672 Köln  
Tel. +49-221-50 80 20-20 · Fax +49-221-50 80 20-99

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## I. Background and Objectives

The transport sector consumes around three-quarters of the global rubber production<sup>1</sup> and Michelin is the world's leading tire manufacturer. Combating global warming, protecting biodiversity and developing a circular economy are priorities for the Michelin Group, which is also aiming for carbon neutrality for 2050 as part of its climate strategy. Cooperating companies SIPH and the Socfin group are intensively working on their sustainability commitments. The Socfin group is using certification schemes like ISCC and RSPO for its palm operations and has published a comprehensive zero-deforestation policy at the end of 2015 for its businesses. SIPH also places the integration of social and environmental issues at the heart of its search for innovation and economic performance. Sustainable use of resources and fight against climate change are key to the company.

In April 2018, Meo Carbon Solutions (MCS) supported Michelin, Socfin and SIPH in a joint project with the calculation of individual GHG emission values for natural rubber production in Africa. MCS developed a GHG emissions calculator covering natural rubber cultivation including potential land use change activities, processing, transport and distribution. The development took place based on information for three production countries (Ghana, Ivory Coast and Liberia). As part of the project, a field trip to Ghana was conducted to proof system boundaries, data gathering and GHG calculations and to ensure a common understanding of the methodology and results.

However, the long-term ambition is to make the model an industry standard adopted by all natural rubber players and endorsed by GP SNR (Global Platform for Sustainable Natural Rubber). Therefore, Michelin Socfin and SIPH are interested in obtaining a simplified GHG emissions calculator for natural rubber production of global application, and usable by all natural rubber industry players for all different production processes.

Against this background the three companies contacted MCS again to provide a proposal for the development of a generic GHG emissions calculator for global application based on experiences and results of the successfully completed former project. A user manual shall be developed to facilitate handling together with a virtual training workshop.

The goal of the proposed project is to:

- Develop a generic GHG emissions calculator usable in future by all natural rubber industry players and covering TSR (Technically specified rubber) and RSS (Ribbed Smoked Sheet Rubber) as final products
- Simplify the existing GHG calculation model and improve usability

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<sup>1</sup> Michelin (2018). Renewable natural rubber's essential role in our sustainable mobility. Available at: <https://transportpolicymatters.org/2018/09/>

- Correct technical biases of the existing GHG calculation model, add further functions and automations and fill data gaps
- Conduct a peer-review process with Michelins' WWF partner and potential further stakeholders to validate the calculator
- Develop and provide a user manual (PPT format) for easy usage of the calculator
- Conduct a training workshop for the use of the calculator.

## II. Approach and Timing

According to the request from the Michelin Group, the Socfin Group and SIPH, MCS is proposing five major working steps (WS) in order to achieve the above goals in a timely manner and reduce risks and efforts for all parties to a minimum. The five working steps and the respective timeline and deliverables are described further below.

1. Identification of gaps, determination of new input data, improvement and simplification opportunities to increase usability
2. Analysis of potential changes required due to the inclusion of RSS as new output and collection of respective data
3. Development of a generic GHG emissions calculator for natural rubber production and functionality test
4. Peer-review process with WWF and potential further stakeholders for validation of the calculator
5. Presentation of results, development of user manual and training workshop for users

In the following, the working steps will be described in more detail.

### **WS 1 - Identification of gaps, determination of new input data, improvement and simplification opportunities to increase usability**

In order to develop a generic GHG emissions calculator for natural rubber production, MCS first needs to identify data gaps and technical biases, possibilities for improvement of functions, format, layout and wording, results presentation and simplification of overall structure. This will be done based on experiences from the development of the first calculator and additional information provided by project partners. MCS proposes to conduct a short webinar to compile the suggestions from project partners and define

scope of changes as well as collect input for the development of a user manual. The system boundaries and potential changes for the GHG calculation should be agreed upon as well. MCS will already present a draft set-up of the system boundaries for the GHG calculation.

A detailed feedback from the Michelin Group, the Socfin Group, SIPH and involved main users is key for this working step. All steps in the supply chain from rubber cultivation, processing, transport and distribution to downstream entities will be analyzed. All inputs with a potential effect on GHG emissions must be identified at each production step. Only those emissions that are directly related to rubber production shall be considered. Next to TSR and RSS as final output also 3CV and 3L as grades from TSR process will be considered in the calculation model. Subsequently the project partners need to provide all necessary data in an accessible format for MCS to make the adjustments and update the calculator.

MCS also proposes to set up regular feedback calls during the project timeframe (e.g., every 2-4 weeks) for validation of changes and to keep alignment with the desired results. The frequency and timing of the feedback calls will be determined together with the project partner.

The webinar should be organized within the first two weeks after signature of this proposal assuming timely availability of project partners. Results of WS1 will be available about two weeks after the signature of this proposal.

**Deliverable** of this working step is the conduction of a webinar with project partners to identify and determine improvement options for the calculator, receive feedback for the development of a user manual and collect necessary data for the calculator update.

## **WS 2 - Analysis of potential changes required due to the inclusion of RSS as new output and collection of respective data**

In addition to the collection of user experiences with the initial calculator and new input data, potential changes required to cover all different production streams for natural rubber need to be identified for developing a generic GHG calculator of global application. Hence, this working step consists of developing a common understanding of the supply chain set-ups from natural rubber production, considering RSS (Ribbed Smoked Sheet Rubber) as an additional natural rubber product next to TSR. MCS proposes to consider two new and representative supply chain set ups of RSS production to obtain the necessary information and data for RSS production to be added to the calculator model and to check the functionality of the calculator after integration. The selection of these two supply chain set ups is up to the Michelin Group, the Socfin Group and SIPH.

Respective information on new or adapted processes should be made available by the clients to MCS in order to identify potential changes for the GHG calculation. MCS will

therefore provide to the clients a data request template for data collection and to display the new process.

This working step can be limited to the RSS processing unit itself if it can be ensured that no further changes are necessary for other production steps (cultivation, transport, pre-processing) and inputs upstream the supply chain due to RSS production.

Results of this working step can be provided about two to three weeks after completion of WS 1, assuming a timely provision of required data by Michelin, SIPH and Socfin.

**Deliverables** of this working step is the analysis of potential changes for developing a generic calculator considering two new and representative supply chain sets ups for RSS production and the collection of respective data for the GHG calculation.

### **WS 3 – Development of a generic GHG emissions calculator for natural rubber production and functionality test**

Based on the information and data provided and the defined new system boundaries agreed upon in working step 1 and 2, MCS will develop a generic, flexible and user-friendly GHG emissions calculator for natural rubber production for global application. The GHG calculator itself will be provided in a fully open, transparent, comprehensively documented, updatable and audit-ready version, with an improved easiness of use compared to the initial calculator version. The calculator will be in compliance with the GHG protocol and criteria for a product carbon footprint.

The Michelin Group, the Socfin Group and SIPH needs to collect all input data and sources and forward to MCS in a suitable format. MCS will then research, analyze, and document all relevant emission factors considering global application of the calculator e.g., inclusion of a variety of fertilizers, pesticides, national electricity grids, energy origins. A respective database will be developed and included in the calculator file to facilitate usage and set-up of automations for calculations. MCS has a long-lasting experience with different databases for emission factors and is well acquainted with the different options available.

MCS will set up the new Excel GHG emissions calculator and use the respective emission factors, input values and process flows applicable to the global natural rubber production set ups. Additionally, MCS will improve the wording to common rubber farmer terms, including additional explanations to simplify the use, and where possible more aggregated calculations and automatic results depending on the production process and different input/output options. The GHG calculator will take into consideration two types of natural rubber products: TSR, which was included in the previous calculator already and RSS, as a new rubber product to be included. Also, options for the calculation of emissions from wastewater treatment ponds will be included.

During this working step also different types of potential land use changes can be included or adapted according to client's needs.

The developed GHG calculator by MCS will also provide the results visualized. MCS will create a separate sheet within the Excel calculator file as overview in form of a dashboard to display the results in a user-friendly and formatted way. The visualized results can then be used directly for internal and external communication and also helpful for potential certification audits. Possible designs and figures to be used can be e.g., pie and bar charts or summary result tables. Which information/data/results to be displayed and how to will be discussed with the project partners in the regular project meetings to ensure that the results overview includes everything necessary for a successful communication with the natural rubber industry. There will be no external software being used for displaying the results.

Net GHG emissions/ emission savings from potential land use change will be presented. The calculation will be documented in a transparent way, with respect to methodology and formulas, emission factors, sources, input and output data. Updates of the calculations with regard to data changes will be possible without further support of MCS.

Once the calculator has been developed, a functionality test will take place considering the collected data of the two new supply chain set ups for RSS production and already available production data from the initial calculator. After the functionality of the calculator has been proved, the new GHG calculator can be finalized in about five to six weeks after WS2 as draft version before stakeholder consultation.

**Deliverable** of this working step is a draft version of the generic GHG emissions calculator for natural rubber production for global application with additional explanations, simplified wording, automatic results and aggregated calculations, applicable to new countries of origin as well as TSR and RSS production processes.

#### **WS 4 – Peer-review process with WWF and potential further stakeholders for validation of the calculator**

With the purpose that the GHG emissions calculator should be recognized by international experts and the global rubber community, Michelin requests to include the WWF in a peer-review process. Potential further relevant stakeholders to be considered can be discussed and agreed upon with the clients and MCS. Michelin will organize the communication with its WWF partner and forward the draft calculator version to WWF for review. Expected feedback from this stakeholder consultation should be discussed with the clients and MCS in a short follow-up call and respective additional changes on the calculator determined. After the peer-review and validation of the GHG emissions calculator is finalized, MCS will integrate final changes respectively. The final GHG emissions calculator can be delivered in about one to two weeks after WS3 assuming a

timely revision of WWF and potential other stakeholders and availability of the clients for a follow-up call.

**Deliverable** of this working step is the conduction of a peer-review process with WWF and potential additional stakeholders and a validated generic GHG emissions calculator for the natural rubber production ready for use by natural rubber stakeholders.

### **WS 5 – Presentation of results, development of user manual and training workshop for users**

The new version of the generic GHG emissions calculator will be presented to the Michelin Group, the Socfin Group and SIPH in a final webinar at the end of the project. Also, improvement potentials in the rubber supply chain to lower GHG emissions will be highlighted as part of the presentation.

MCS will develop and provide a user manual (in PPT format) for easy handling of the calculator, instructing in the calculator's application and providing further information on structure, functionalities and different steps for users to perform calculations for each calculator sheet and supply chain step. The user manual will come along with a virtual training workshop conducted by MCS for future users of the calculator from Michelin, Socfin and SIPH. During that workshop MCS will explain the structure and functions of the calculator, show examples and answer specific questions on its application.

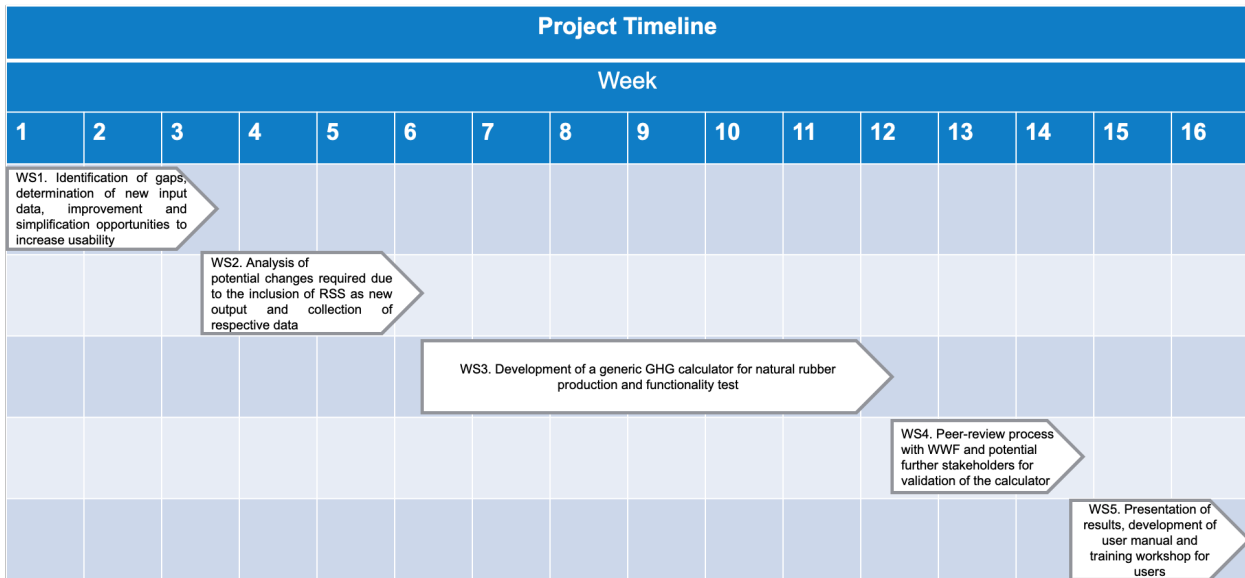
It is expected that the final GHG emissions calculator, user manual and training workshop can be presented about three to four weeks after completion of WS4. The online workshop for users should take place at the end of the project timeline once the user manual is available and serves as basic information.

**Deliverables** of this working step are the presentation of the new GHG emissions calculator, a developed user manual in PPT format for the appropriate use of the GHG calculator and the conduction of a virtual training workshop for respective users.

It is expected that the whole project can be concluded after approx. 4 months after signature of this proposal.

The proposed approx. timing of each working step is described in the table below.





(\*) WS= Working step. Please note that week 1 starts with the signature of this proposal

### III. Team

Dr. Jan Henke, Julia Ostrowski, Marco Moras, and Yazmin Leon will conduct the project.

**Dr. Jan Henke** holds a degree in International Economics of the University of Tübingen. From 2002 to 2006 he was a research associate at the Kiel Institute for the World Economy in the research area “The Environment and Natural Resources”. He received his Ph.D. from the University of Potsdam, Germany. Throughout his career, Jan Henke worked extensively on the topics of renewable energies, sustainability, climate change, GHG emission calculations and certification. He has joined projects, commissioned by both, the public sector and private companies in Germany, Europe, Southeast Asia and the Americas. Within ISCC he is responsible for the GHG emissions calculation and audit. Dr. Jan Henke is Director of Meo Carbon Solutions.

**Julia Ostrowski** is senior consultant and project manager for emission calculations of entire supply chains with a focus on alternative technologies and renewable resources. She holds a Master of Science in Sustainable Economics and Management from the University of Kassel and wrote her Master thesis on the future role of Used Cooking Oil (UCO) for sustainable biofuel production. Her area of expertise at MCS is the verification and accounting of GHG emissions of bio and non-bio products under different internationally recognized standards, as baseline for potential voluntary or mandatory certification for companies. She worked on different projects elaborating support-tools for the implementation of sustainable supply chains and the production of biofuels and bioproducts as well as research projects on the Bioeconomy and certification add-ons.

**Marco Moras** holds a degree in BSc in Mechatronics Engineering (Monterrey Institute of Technology and Higher Education) with an accentuation in Energy and Environmental Engineering (University of Calgary), as well as a MSc in Carbon Management (University

of Edinburgh). His work experience has focused on climate change mitigation projects and GHG emission calculations in for products and companies in different sectors. He has been part of collaborations with international organizations and institutions in Latin-American and European countries. At Meo Carbon Solutions he works in the development of GHG emission calculation projects under different regulations, methodologies and certification schemes.

**Yazmin Leon** holds a Master of Science in Sustainable Resources Management from the Technical University of Munich and a diploma in Environmental Engineering. Before joining Meo Carbon Solutions, she has gained expertise and knowledge in a wide range of sustainability and climate change topics in different countries such as Peru, Colombia, Mexico and Germany, supporting a low-carbon transition in mainly the Energy, Aerospace and Water industry. She wrote her master thesis on Payment for Ecosystem Services in Latin America with national REDD+ case studies working together with country project managers to increase the efficiency of these programs and promoting sustainable economic activities in forests under conservation. Miss Leon holds 5 years of working experience in sustainable solutions and GHG accounting.

#### **IV. Budget**

To work with Michelin along the lines for a period from approval of the proposal until the final presentation and discussion of results, we require an authorization for professional services of € 48.000 (without VAT).

The fee is fixed. If MCS must spend more time than scheduled on the project, this will have no impact on the budget. MCS proposes two instalments: the first payment (50% of the total budget) immediately after contract signature, the second (50% of the total budget) after successful project completion.

This assignment is subject to the attached General Terms and Conditions of Business. MCS will carry out the project to the best of its knowledge and in all conscience. A liability for investment decisions and subsequent potential damages or costs is excluded. In any case, the liability is limited to the fee volume of this contract.

#### **V. Why Meo Carbon Solutions?**

Meo Carbon Solutions (MCS) is an independent consulting company with a special work focus and a long working history in the area of renewable resources, renewable energies, biofuels, sustainable supply chains, sustainability certification, climate change, greenhouse gas emission calculations and mitigation strategies. MCS is active in Europe, South-East Asia, and the Americas and has managed many national and international projects for public and private sector clients in these areas. Many of the projects involved the participation of stakeholders from industry, agriculture, NGOs, research institutions

and public authorities. MCS has a thorough understanding of the agricultural, forestry, renewable energy, mineral oil, automotive and the conventional energy industry.

MCS has gained in depth practical experience with the implementation of sustainability and GHG requirements and with the detection of land use change, in particular from the development and managing of ISCC, a system that can be used to proof compliance with the sustainability and GHG requirements from the Renewable Energy Directive (RED). In addition, MCS was responsible for the development of ISCC PLUS, a sustainability and GHG certification system for the food, feed, chemical and all other sectors. ISCC was the first system to become officially recognized by the German Government in January 2010 and became officially recognized by the European Commission in July 2011, with the re-recognition achieved in August 2016. MCS has also developed Global Risk Assessment Services (GRAS), a system that can provide georeferenced sustainability information on land use change from 2000 until today, on biodiversity, carbon stock and social indices. Companies can use GRAS to implement no-deforestation commitments.

MCS is well acquainted with the value chains for renewable resources from agricultural, forestry, waste and residue-based feedstock to final product in the different markets. MCS also gained an extensive experience in sustainability and GHG calculation and certification, in the preparation of companies for certification and in conducting GHG calculations along the entire supply chain based on different methodological framework conditions.

Relevant experience for the forthcoming task has been gained from the following selected projects:

- Greenhouse gas emissions calculations based on the RED/RED II and certification requirements for many companies along the entire supply chain, from agricultural production, processing steps to final product and distribution. Handover to clients of open, transparent, fully documented and updatable GHG calculators
- GHG calculations for different types of processing units along the supply chain and analysis of GHG improvement potentials
- Development of GHG calculators for various annual and perennial crops as feedstocks for further processing for different sectors and markets (e.g., corn, natural rubber, coffee, palm oil, grains and oil crops)
- Development of certification concepts and GHG calculation for forest-based biofuels
- Development of certification concepts and GHG calculation for bio methanol processed from waste- and residue-based feedstock and landfill gas
- Concept, pilot project, implementation and management of ISCC and 4C in a multi-stakeholder process
- Further development of ISCC and extension to additional supply chains, raw materials and markets

- Analysis of waste and renewable feedstock streams and their potentials under existing and future legislation. Support of applications to member state authorities
- Policy advice to the German Government in the context of the development of the German Sustainability Ordinances
- Development of GRAS, a system that provides georeferenced sustainability information and that can detect land use change from 2000 until today and can map no-deforestation supply chains
- Development of smallholder projects in the palm oil sector and preparation of smallholders for certification
- Supply base analysis for different agricultural traders, first gathering points/ country elevators, plantation companies and financial institutions with respect to sustainability requirements and land use change.

## VI. Confidentiality

MCS commits itself to treat this project and all project specific contents confidential and only pass on information about the project and the cooperation itself to third parties if it serves the project's purposes.

Proposal "**Development of a generic GHG emissions calculator for natural rubber production of global application with user manual and virtual training workshop**"

Approved for

Meo Carbon Solutions GmbH

By: Dr. Norbert Schmitz

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Title: Managing Director

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Date: October 27, 2021

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Accepted for

Michelin

By:

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Title:

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Date:

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Accepted for

SIPH

By:

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Title:

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Date:

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Accepted for

SOCFIN

By:

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Title:

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Date:

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## **Attachment**

### **Meo Carbon Solutions GmbH: General Terms and Conditions of Business**

#### **A. General rules for consulting services**

##### **I. Scope of validity for general rules:**

The provisions of paragraphs A I. to A XIII. and the final provisions of paragraph B. XIV. shall apply to all offers of consultation and all contracts between Meo Carbon Solutions GmbH (MCS) and their customers irrespective of content and the legal nature of the offered or contractually undertaken consulting services.

##### **II. Business management contract:**

The business management contract in accordance with § 675 BGB (German Civil Code) becomes binding between the customer and MCS by means of written confirmation of the respective offer.

##### **III. Obligations on the customer to cooperate:**

In order to enable the desired professional work the customer shall inform MCS as comprehensively as possible on the business and organizational and technical and competitive situation of their company. The customer shall cooperate as follows and in particular personally and insofar as necessary also through their employees:

- III.1. All questions put by the MCS consultants regarding the actual and legal conditions within the customer's company shall be answered as fully as possible and to the point at short notice; this also applies to questions concerning the actual and legal relationships between the customer and their business partners and competitors insofar as relevant to the implementation of the consultation project. MCS will only put questions to which the answer is significant to the remit.
- III.2. MCS shall also be informed without request and in good time on such circumstances which could be significant to the remit.
- III.3. Delivered intermediate results and intermediate reports shall be checked by the customer promptly as to whether the information on the customer and/or their company is correct, where appropriate the necessary correction and modification requests shall be promptly notified in writing to MCS.

##### **IV. Confidentiality:**

MCS is obligated to treat in strict confidence all economic and personal related information on and/or knowledge about the customer which is acquired through the placement of the order and/or the implementation of the project.

##### **V. Data security by the customer**

Where the MCS remit undertaken entails work by MCS on or with the customer's IT equipment then the customer shall ensure in good time prior to the commencement of the respective work that in the case of an annihilation or forgery their recorded data can be reconstructed from machine readable data media at reasonable expense (= data backup).

**VI. Fees, modification requests and additional requirements in the absence of contractual agreements:**

- VI.1. The fees invoiced by MCS relate to the consulting project specifically geared to and agreed with the customer. In this respect the fee calculation is based in principle on the estimated time involved as described in the quotation calculated in man-days multiplied by the contractually agreed daily rate.
- VI.2. Should during the development of the project modification requests and/or additional requirements result on the part of the customer then MCS shall as the case may be state the additional consulting costs by means of a supplementary quotation and shall invoice this additional cost after acceptance by the customer.

**VII. Travel expenses, office expenses in the absence of contractual agreements:**

The incidental costs incurred by MCS for travel, paper and graphic work, telecommunication etc. shall be invoiced separately at a flat rate of 15% of the agreed consulting fee.

**VIII. Total budget, value added tax:**

- VIII.1. Agreed consulting fees, agreed expenses and the flat fee for office expenses together make up the total budget.
- VIII.2. The applicable value added tax rate in each case is levied by MCS on this total budget.

**IX. Advance payment, monthly rates, final invoice in the absence of contractual agreements:**

- IX.1. MCS shall invoice 50% of the total budget upon the placing of the order (= advance payment). This advance payment shall be due upon receipt and payable by the customer without deduction.
- IX.2. The remaining 50% of the total budget shall be divided into equal monthly sums to be invoiced throughout the duration of the project (= monthly rates). These monthly sums shall fall due upon receipt of each respective invoice and are payable by the customer without deduction.
- IX.3. At the end of the contract MCS shall issue a final invoice to the customer corresponding to the payments already made and the payments still outstanding. The payments still outstanding shall be due upon receipt of the final invoice and are payable by the customer without deduction.
- IX.4. If the customer falls into arrears with the balance of invoices due for payment, then MCS shall be entitled to cease the work on the contract until these outstanding payments are met.

**X. Grounds for ending the business management contract, concluding discussion, compensation in the case of cancellation:**

- X.1. The business management contract shall in principle come to an end either through the expiry of an agreed period of time or through the achievement of its purpose.
- X.2. Irrespective of paragraph 1. the business management contract can be terminated by either party to the contract by written cancellation subject to a period of four weeks' notice at the beginning of the month or at the end of the month respectively (= proper notice of termination).
- X.3. Irrespective of paragraph 1. the right to written extraordinary cancellation by each party to the contract shall remain unaffected.
- X.4. Irrespective of the specific grounds for the termination a concluding discussion shall always take place between the parties to the contract.

X.5. The customer shall pay MCS the agreed fees and the agreed travel and office expenses for the services rendered up until the receipt of notice of termination. Thereby the basis for the calculation is in principle the time already invested calculated in man-days multiplied by the contractually agreed daily rate up until receipt of the notice of termination. If for individual service phases within a contract fixed or flat rate prices had been agreed, then the basis for calculation shall be the state of accomplishment of these individual service phases.

**XI. Cancellation by the customer of agreed training sessions:**

In the case of cancellation of agreed training sessions (e.g., communication training, team development class work, executive training) owing to reasons which lie within the sphere of influence of the customer then a cancellation charge of fifty percent of the agreed fees shall be due within four months to one month prior to the specified date. In the case of cancellation of agreed training sessions less than one month prior to the specified date then the entire agreed fee shall be paid by the customer.

**XII. Impediments to performance, default and impossibility on the part of the contract executing associate:**

XII.1 MCS shall only be deemed to have defaulted on performances where specific completion dates for these had been agreed as set dates or MCS is accountable for the delay. MCS shall not be accountable in the case of force majeure and occurrences which were unforeseeable at the conclusion of the contract (e.g., unforeseeable dropping out of the consultant(s) designated to the project) and thereby render the agreed performance impossible or unacceptably exacerbate this.

XII.2. Where the impediments to performance are of a temporary nature then MCS shall be entitled to postpone the fulfilment of their obligations by the duration of the impediment and by a reasonable lead time.

**XIII. Liability, statute of limitation:**

XIII.1. Where and insofar as possible consultation errors and/or possible shortcomings in the business management bear on the fact that the customer has not or not completely or not in a timely manner fulfilled their obligation to cooperate in accordance with paragraph III. of these general rules for consultancy services then the liability of MCS is excluded. The burden of proof of the complete and timely fulfilment of all duties to cooperate shall fall upon the customer in the case of a dispute. MCS further accepts no liability for possible damage to the customer arising from the non-observance of the security obligations in accordance with paragraph V. of these general rules for consulting services.

XIII.2. All consultancy services shall be researched and formulated to the best knowledge and belief. Notwithstanding this last no guarantee can be given on the part of the contract executing associate for the correctness or completeness and accuracy of this information. The execution within the scope of the contract furthermore represents neither a counselling nor a request to purchase or invest in respect of parcels of land or machinery or plant or other material or non-material resource. Liability on the part of MCS for financial losses which may possibly arise through the use of advice and recommendations within the scope of the consultancy contract is categorically excluded.

XIII.3. All possible claims for damages against MCS shall lapse at the latest after a period of three years. The period of limitation shall commence with the recognizability of any damage but at the latest with the completion of the contractual activity.



**B. Final provisions:**

**XIV. Applicable law, requirements of written form for contract amendments**

- XIV.1. The law applicable to this contract shall be the law of the Federal Republic of Germany.
- XIV.2. All disputes which arise in connection with this agreement or its validity and which cannot be resolved amicably shall be irrevocably decided by an ICC (Paris International Court of Arbitration) ruling in The Hague in Holland to the exclusion of recourse to the courts. The Court of Arbitration also has the power to make a binding decision on the validity of this arbitration agreement. Both the customer and MCS shall be free to seek an interim remedy through the ordinary courts provided that the final decision on the litigation is made by the competent Court of Arbitration.
- XIV.3. Amendments and additions to the contract including these conditions shall require to be made in writing. This shall also apply to the waiver of this requirement for written form.