

C-230

Green Deal on Maritime and Inland Shipping and Ports

The parties:

1. The Minister of Infrastructure and Water Management, Ms C. van Nieuwenhuizen-Wijbenga, hereafter referred to as: I&W;
2. The Minister of Economic Affairs and Climate Policy, Mr Eric Wiebes, hereafter referred to as: EZK;
3. The State Secretary for Defence, Ms B. Visser, hereafter referred to as: Defence;

Parties 1 to 3, each acting in their capacity as an administrative authority and representing the State of the Netherlands, are hereafter jointly referred to as: **Central Government**.

4. Gelderland provincial executive, acting as an administrative authority, represented by Mr R. Dragt, concern manager, hereafter referred to as: Gelderland provincial authority;
5. North Brabant provincial executive, acting as an administrative authority, represented by Ms M.J.G. Spierings, the member responsible for Agricultural Development, Energy and Governance, hereafter referred to as: North Brabant provincial authority;
6. Overijssel provincial executive, acting as an administrative authority, represented by Ms A. Traag, member responsible for Energy, the Environment and Europe, hereafter referred to as: Overijssel provincial authority;
7. Utrecht provincial executive, acting as an administrative authority, represented by Mr A. Schaddelee, member responsible for Mobility, Permitting, Supervision and Enforcement, Communication and Participation, hereafter referred to as: Utrecht provincial authority;

Parties 4 to 7 are hereafter jointly referred to as: **the Provincial Authorities**.

8. Nijmegen municipal executive, acting as an administrative authority, represented by Ms H. Tiemens, member responsible for sustainability (climate and energy), housing, traffic and transport, parks and water, hereafter referred to as: Nijmegen municipal authority;

Parties 1 to 8 are hereafter jointly referred to as: **the Authorities**.

9. Centraal Bureau voor de Rijn- en Binnenvaart, represented by Mr R. Kasteel, director, hereafter referred to as: CBRB;
10. Royal BLN-Schuttevaer, represented by Mr D. Schrijer, chair, hereafter referred to as: BLN;
11. Royal Association of Netherlands Shipowners, represented by Mr S. Hassing, president, hereafter referred to as: KVNR;
12. Maritime by Holland, represented by Mr A. Uytendaal, director, hereafter referred to as: NML;
13. Netherlands Maritime Technology, represented by Mr R. de Graaf, managing director, hereafter referred to as: NMT;
14. Vereniging van Waterbouwers, represented by Mr E. Lokkerbol, director, hereafter referred to as: VVW;

Parties 9 to 14 are hereafter jointly referred to below as: **the Trade Associations**.

15. Groningen Seaports NV, represented by Ms M. van den Dungen, executive secretary, hereafter referred to as: GSP;
16. Port of Amsterdam NV, represented by Mr K. Overtoom, chief executive officer, hereafter referred to as: HBA;
17. Port of Rotterdam NV, represented by Mr R. Paul, chief operational officer, hereafter referred to as: HBR;
18. North Sea Port, represented by Mr J.P.D.M. Lagasse, chief executive officer, hereafter referred to as: North Sea Port;
19. Port of Moerdijk NV, represented by Mr F.J. van den Oever, director, hereafter referred to as: Port of Moerdijk;

Parties 15 to 19 are hereafter jointly referred to as: **BOZ**.

20. Nederlandse Vereniging van Binnenhavens, represented by Mr E. Janse de Jonge, chair, hereafter referred to as: NVB;

Parties 15 to 20 are hereafter jointly referred to as: **the Ports**.

21. Boosting Initiatives for Collaborative Emission-reduction with the Power of Shippers Network Foundation, represented by Mr W. Vermeer, chair, hereafter referred to as: BICEPS Network;
22. Evofenedex, represented by Mr S. Lak, president, hereafter referred to as: Evofenedex;

Parties 21 and 22 are hereafter jointly referred to as: **the Shippers.**

23. ABN AMRO Bank NV, represented by Mr G. Pols, manager of Netherlands Inland Navigation Unit, hereafter referred to as: ABN AMRO;
24. ING Group NV, represented by Mr P. Baan, director of Transport and Logistics, Ports and Shipping ING Southwest Region, hereafter referred to as: ING;
25. NIBC Bank, represented by Mr M. de Visser, managing director, hereafter referred to as: NIBC;
26. Coöperatieve Rabobank U.A., represented by Mr M. van Beek, Inland Navigation sector manager, hereafter referred to as: RABO;

Parties 23 to 26 are hereafter jointly referred to as: **the Banks.**

27. The Netherlands Organisation for Applied Scientific Research TNO, represented by Dr. M.G.M. de Kroon, managing director of Buildings, Infrastructure and Maritime Unit, hereafter referred to as: TNO;
28. Maritime Research Institute Netherlands, represented by Mr B. Buchner, president, hereafter referred to as: MARIN;
29. Delft University of Technology, represented by Professor T.S. Baller, dean of the 3ME faculty, hereafter referred to as: TU Delft;

Parties 27 to 29 are hereafter jointly referred to as: **the Knowledge Institutions.**

30. Akzo Nobel Industrial Chemicals BV, represented by Mr M.E. Galjee, director of Energy, Nouryon Industrial Chemicals, hereafter referred to as: Nouryon;
31. Binnenlandse Container Terminals Nederland BV, represented by Mr J.M. Mijland, chief operational officer, hereafter referred to as: BCTN;
32. Deltalinq, represented by Mr S. Lak, chair, hereafter referred to as: LNG Platform;
33. Netherlands Association for Forwarding and Logistics, represented by Mr R. de la Houssaye, chair, hereafter referred to as: FENEX;
34. GoodShipping BV, represented by Mr D.W. Kronemeijer, director, hereafter referred to as: GoodShipping;
35. Nederlandse Waterstof en Brandstofcel Associatie, represented by Mr W. van Niekerk, chair, hereafter referred to as: NWBA;
36. Platform Duurzame Biobrandstoffen, represented by Mr J. Grin, chair, hereafter referred to as: PDB;
37. Shell Nederland BV, represented by Ms M. van Loon, chief executive officer of Shell Netherlands, hereafter referred to as: Shell;
38. Stichting Green Award, represented by Mr J.A.A.J. Fransen, director, hereafter referred to as: Green Award Foundation;
39. Stichting Projecten Binnenvaart, represented by Mr K. Tachi, director, hereafter referred to as: EICB;
40. ProSea Marine Education, represented by Mr B. van Dessel, director, hereafter referred to as: ProSea;
41. Dutch Association for Transport and Logistics, represented by Mr J. Boeve, managing director, hereafter referred to as: TLN;
42. Vereniging van Nederlandse Inland Terminal Operators, represented by N. Visser, chair, hereafter referred to as: VITO.

Referred to jointly below as: **the Parties.**

General considerations

1. To preserve our prosperity for future generations, we must enhance the competitiveness of our economy while at the same time reducing the burden we put on our environment and our dependence on fossil fuels and scarce resources.
2. Creativity, entrepreneurship and innovation will be essential in making this transition to green growth. Companies, citizens and civil society organisations have launched a host of concrete initiatives designed to green the economy and our society. The government intends to exploit this dynamic towards green growth to the full in its Green Deal approach.
3. Green Deals offer companies, citizens and organisations an accessible way of working with the government to achieve green growth. They are based on initiatives originating in society. Where they encounter obstacles that the initiators believe could be tackled at central government level, the government will seek to remove them in order to facilitate and expedite these initiatives. In a Green Deal the parties agree in writing to specific arrangements to this effect.

4. The results of a Green Deal can be used in other similar projects, allowing them to be imitated and extending the scope of the Green Deal without the need for specific support from Central Government.

Specific considerations

Generally applicable

1. This Green Deal is in accordance with the coalition agreement of the third Rutte government, 'Confidence in the Future', of 10 October 2017, which stated: 'substantial environmental gains can still be achieved in the maritime and inland shipping sectors. A Green Deal for sustainable maritime and inland shipping and ports will be concluded with the sector.'
2. The coalition agreement of 10 October 2017 announced that a National Climate Agreement would be drawn up. The Climate Agreement will set out measures to reduce carbon emissions in the Netherlands by 2030. The draft Climate Agreement includes a section on the inland shipping sector. The sector's target for carbon emissions reduction will be elaborated in the framework of this Green Deal, in the run-up to the finalisation of the draft Climate Agreement. The maritime shipping sector does not fall within the scope of the draft Climate Agreement. The government acknowledges that its national ambitions should also enhance the sustainability and further reduce carbon emissions of long-distance (international) transport. This Green Deal therefore also includes agreements and ambitions for the Dutch maritime shipping sector.
3. EZK's letter to parliament of 23 February 2018 concerning the government's efforts in respect of the Climate Agreement referred to the arrangements agreed as part of this Green Deal as one of the results envisaged for the transport sector. The letter to parliament of 21 December 2018 presenting the draft Climate Agreement to the House of Representatives and the Senate also mentioned this Green Deal.
4. In the coalition agreement the government set out its ambition to seek a permanent improvement in air quality by, among other things, drawing up a National Action Plan on Air Quality. This has resulted in the Clean Air Agreement, which focuses on achieving substantial health benefits. This Green Deal includes goals, ambitions and actions that will also help improve air quality. It is envisaged that the Clean Air Agreement will be signed by I&W and the provincial and municipal authorities concerned by the end of 2019.
5. This Green Deal is intended to reduce both harmful emissions to air (nitrogen oxides (NO_x), sulphur oxides (SO_x) and particulate matter (PM)) and emissions of greenhouse gases.
6. This Green Deal is national in scope. Given the transboundary and international nature of maritime and inland shipping, and the importance of a level playing field for maritime ports, certain agreements laid down in this Green Deal will have to be enshrined at international level and considered in the development of international rules and regulations on emissions to air caused by maritime and inland shipping.
7. Maritime and inland ports will play a facilitating role in reducing harmful emissions from maritime and inland shipping. This Green Deal does not deal with making port complexes more sustainable.
8. This Green Deal will contribute to the Work Programme for the Maritime Strategy and Seaports signed on 22 February 2018, which implements the government-wide Dutch Maritime Strategy 2015-2025. This work programme – which also applies across central government – includes a broad range of measures designed to help strengthen the competitiveness and sustainability of maritime and inland shipping and ports. The measures that contribute to enhancing sustainability have been elaborated in more detail in this Green Deal.
9. The State of the Netherlands is also a shipowner (Government Shipping Company and Royal Netherlands Navy). It can play an important role in this capacity, both in applying existing, sustainable maritime solutions and in research and development.
10. The Netherlands is Europe's largest supplier of marine fuel, so we have an opportunity to use this position to become a leader in the production and supply of low-carbon marine fuels. The market for low-carbon marine fuel is an

important element of the greening of the petrochemical industry, thus preparing the chemicals and refineries industries for the future.

11. The voluntary agreement on LNG and bio-LNG as transport fuel, signed by I&W, EZK and the 22 members of the LNG Platform on 16 November 2017 is regarded as supportive of the objectives of this Green Deal.
12. The water and maritime technology top sector promotes innovation and research for cleaner shipping, focused particularly on fuel efficiency, emission reduction and reduced use of materials. EZK and NML together support projects designed to produce such maritime innovations through the Maritime Innovation Programme. The actions of the water and maritime technology top sector will help achieve the objectives of this Green Deal.
13. The logistics top sector is encouraging the development and implementation of system innovations in logistics that will enable shippers to combine cargo flows (as in the Lean&Green Offroad and Compose projects). The top sector is also involved in activities aimed at reducing congestion, designing funding models for the energy transition and developing practical methods to measure emissions per unit of goods transported.
14. To achieve zero-emission ships, it will not be enough simply to apply solutions that are already available. Research institutions and industry are already investing in research and development, but existing efforts need to be accelerated considerably. The government could play a facilitating role in this regard. One further advantage of R&D acceleration is the competitive advantage it would give to the Dutch private sector.
15. There are currently numerous maritime solutions that, if applied to ships, would immediately lead to a reduction in emissions. But these solutions are not suitable for all vessels and validated data on their effects is often lacking, making objective comparison impossible at this stage.
16. Maritime and inland shipping are currently having difficulties obtaining finance for accelerating the greening of the fleet (retrofit and new builds). The additional costs of sustainable solutions are currently such that the business case is problematic, or not viable in terms of current financing options. The maritime sector also often works with prototypes, and it is vital that new, as yet unproven technologies, be tested by means of experiments.
17. The authorities at both national and European level have a number of grant and funding instruments for promoting innovation that will make maritime and inland shipping more sustainable. There are instruments aimed at ships as a mode of transport and instruments aimed at building new infrastructure for, storing and using cleaner, renewable energy. These are existing grant schemes, such as Demonstration of Climate Technologies and Innovations in Transport (DKTI-Transport) and Innovation for Sustainable Inland Shipping (IDB), both funded by I&W, and EZK's Sustainable Shipbuilding grant scheme (SDS).

Inland shipping

18. In its strategy published on 7 December 2017, the Central Commission for Navigation on the Rhine (CCR) adopted the vision of zero emissions from inland navigation vessels by 2050. The ministers of the member states of the CCR affirmed this vision in the Mannheim Declaration signed on 17 October 2018. They also agreed to work towards a 35% reduction in emissions both of greenhouse gases and of environmental pollutants from inland navigation by 2035, relative to 2015. In the declaration the ministers pointed to the need for new financial instruments to achieve these environmental objectives and entrusted the CCR with the task of leading this development. This Green Deal shows how the Netherlands intends to implement the Mannheim Declaration.
19. Parties that are also party to the 'Declaration of Nijmegen', signed on 12 April 2018, will fulfil the agreements they signed up to in the Declaration through this Green Deal.
20. The CCR II standard for ship engines is now outdated. Engines that comply with Stage V of Regulation (EU) 2016/1628 are much cleaner and also more fuel efficient. A large-scale transition to CCR II engines is therefore undesirable, as it could hamper progress towards Stage V or ultimately the use of zero-emission, climate-neutral technologies.
21. The use of sustainable biofuels could reduce carbon emissions from inland vessels in the short term.

22. To reduce emissions of NO_x, PM and other substances, the EU requires all new combustion engines for inland vessels to comply with the Stage V standard from 2019/2020. The sector's performance in terms of emissions will therefore improve over the coming years. Ships with alternative methods of propulsion will also be launched.

Nevertheless, the Parties acknowledge the need to accelerate the greening of the sector. In recent years, several studies have shown that financial feasibility will be a decisive factor in the further greening of inland vessels, combined with a comprehensive set of complementary measures.

In 2015 the then Minister of Infrastructure and the Environment commissioned a study on the long-term effects of potential policy scenarios designed to improve the environmental performance of the existing fleet of inland waterway vessels ('Rapport Inventarisatie milieuprestaties bestaande binnenvaartvloot West-Europa' [Survey of the Environmental Performance of the Existing West-European Inland Fleet], December 2015). The Minister then informed the House of Representatives that the Netherlands would use the results of the report to call, within the EU and the CCR, for ambitious goals and a plan of action on enhancing the sustainability of inland shipping.

The Netherlands' position in international consultations on this issue is twofold:

1. More ambition is needed when it comes to the greening of the existing West-European inland fleet up to 2040. Only modest results are expected in the longer term from the EU regulation on new engines, expected in 2020, and making access to the Port of Rotterdam conditional on compliance with emission standards as of 2025.
 2. Assuming that the greening of the existing inland waterway fleet will be undertaken on a voluntary basis, additional measures will be needed, in which financial support for investments will play a vital part. Given the international nature of inland navigation, and the need to preserve a level playing field, these measures will have to be taken at European level.
23. The COBALD Green Deal has provided experience of continuous on-board monitoring. An evaluation of the COBALD Green Deal, completed in February 2019, found that continuous monitoring is not a full alternative for test rig measurements on which the type approval of engines is based.
24. Over the past few years provincial authorities have carried out or contributed to pilot projects and programmes aimed at greening inland navigation, including CLINSH (Clean Inland Shipping) and the Clean Energy Hubs project initiated by Gelderland province. The Clean Energy Hubs programme, initiated by Central Government and the Provincial Authorities as part of the Multiyear Infrastructure, Spatial Planning and Transport Programme (MIRT), aims to establish a comprehensive network of refuelling points for renewables along roads and waterways in the East and Southeast freight corridors.
25. Optimum functioning in the logistics chain contributes to a better environment, but achieving this is conditional on several things, including developments in terms of digitalisation, Smart Shipping, rapid handling in ports (to prevent congestion), sufficient capacity, and intelligent waterway infrastructure with reliable travel and waiting times, so that the operating times of locks and bridges can be properly configured.

Maritime shipping

26. On 13 April 2018 the International Maritime Organisation's (IMO) Marine Environment Protection Committee (MEPC) agreed carbon reduction objectives for maritime shipping that should lead to an absolute reduction in greenhouse gas emissions of at least 50% by 2050, relative to 2008. Greenhouse gas emissions will be completely phased out in the second half of this century. The agreements also imply that the transport performance of individual maritime vessels must be improved to such an extent that carbon emissions per tonne-kilometre is reduced by an average of 40% by 2030 and an average of 70% by 2050, relative to 2008. It was also agreed that the Energy Efficiency Design Index (EEDI) standards for ships would be tightened up. This means newly built ships will in the future have to be more energy-efficient.
27. In this Green Deal the Dutch maritime shipping sector has expressed its wish to go a step further than the carbon emission reduction goal agreed at the IMO. To achieve this, the entire maritime sector will have to collaborate in partnerships, and obstacles to greening will have to be removed. It is currently unprofitable or difficult to invest in

greening measures. To make a convincing business case for the greening of the sector, the scope for financing green investments must be improved. This Green Deal offers this possibility, for example through new and existing government instruments for financing and tax incentives. Investment will also be needed in research into and development of new technologies, and it is important that pilot projects can be carried out on board ships. The government could play a facilitating role in this, for instance, as a launch customer.

28. The MEPC also reached agreement on reducing the air pollutants NO_x, SO_x and PM, in particular by establishing Emission Control Areas in, for instance, the North Sea and adopting global emission standards. The maximum permissible sulphur content for marine fuels for ships navigating the North Sea has been reduced from 1% to 0.1%. In 2020 the international maximum permissible sulphur content will be 0.5%. From 1 January 2021 all new vessels that navigate the North Sea must comply with new standards for NO_x which are over 70% more stringent than the current standards. This Green Deal will help implement these international agreements.
29. To get a good picture both of carbon emissions from the Dutch maritime fleet and of progress towards the goals in the Green Deal, aggregated carbon emissions data must be made available.
30. Good exchange of information between all parties involved in a port call can save fuel and thus reduce carbon emissions.
31. I&W and Defence are themselves active in maritime shipping through the Government Shipping Company and Royal Netherlands Navy fleets. I&W is leading the transition to zero-emission maritime shipping and is thus pursuing the climate objectives of Rijkswaterstaat, which is responsible for the Government Shipping Company and which falls under I&W. Defence will set out its objectives in the Defence Energy and Environment Strategy 2019-2022, which is to be adopted in the near future. Rijkswaterstaat's climate objectives are: '20% reduction in carbon emissions by 2020, energy neutral by 2030 and fully climate-neutral and climate-resilient by 2050'. To verify the feasibility of these objectives, the Government Shipping Company will study alternative means of propulsion, as stated in article 19, paragraph 3 below.

To this end, the Parties have agreed as follows:

1. Ambitions and goals

Article 1 Ambitions

The Parties have the following ambitions:

By 2030:

1. to have a reduction of carbon emissions from the Dutch inland fleet by 40% to 50% relative to 2015;¹
2. to have fitted at least 150 inland vessels with a zero-emission power train;
3. to have launch of at least one zero-emission seagoing vessel.

By 2035:

4. to have a reduction of emissions of environmental pollutants from inland shipping by 35% to 50% relative to 2015.²

By 2050:

5. to have a virtually zero-emission and climate-neutral inland fleet;
6. to have achieved a 70% absolute reduction in carbon emissions from maritime shipping, relative to 2008.³ Climate-neutral maritime shipping will be achieved as soon as possible after 2050, and at any rate before the end of the century.

Article 2 Goals

The Parties will work together to achieve these ambitions and to this end have set the following goals for 2024:

For inland shipping:

1. to have developed new European management instruments that will encourage achievement of the ambitions set without the government needing to lay down mandatory emission standards for individual vessels for 2030 and 2035;
2. to achieve a reduction in carbon emissions of at least 20% relative to 2015;⁴
3. to achieve a reduction in emissions of environmental pollutants of at least 10% relative to 2015.⁵

For maritime shipping:

4. to have a reduction of the average carbon emissions per tonne-kilometre by at least 20% relative to 2008;⁶
5. to have further a reduction of emissions of air pollutants other than carbon, such as SO_x, NO_x and PM, in line with relevant international and other agreements;
6. to have developed five new business cases for shore power for maritime shipping within the term of this Green Deal.

¹ Reference year as set out in the Mannheim Declaration.

² Idem.

³ Reference year as set out in IMO's initial strategy on reduction of greenhouse gas emissions from shipping.

⁴ Reference year as set out in the Mannheim Declaration.

⁵ Idem.

⁶ Reference year as set out in IMO's initial strategy on reduction of greenhouse gas emissions from shipping.

2. Efforts and actions

Part I Inland shipping

Article 3 Sustainability fund

1. In order to establish a system as referred to in article 2 I&W will investigate the feasibility of a European sustainability fund for inland waterway vessels. This study will be conducted in collaboration with other CCR member states and will be completed by 2020 at the latest.
2. The study referred to in paragraph 1 will at any rate examine the extent to which the sustainability fund would be able to satisfy the following criteria:
 - a. Entrepreneurs can apply to the fund to finance investments in improving a vessel's emissions performance, as referred to in article 4, paragraph 3.
 - b. The fund is broadly accessible to entrepreneurs from all segments of the inland navigation sector.
 - c. It is a low-threshold fund, in both financial and administrative terms.
 - d. Award of grants from the fund are contingent on improvements to the vessel's emissions performance.
 - e. The fund gives entrepreneurs an incentive for investing in emissions performance.
3. The study will also consider how the fund will be financed, for example through annual contributions from inland navigation entrepreneurs, contributions from the EU/national governments or resources from financial institutions.
4. BLN and CBRB will support the action mentioned in paragraph 1 through the European Barge Union (EBU), the European Skippers' Organisation (ESO) and the Inland Waterway Transport (IWT) platform.

Article 4 Labelling system

1. In anticipation of and with a view to the establishment of a labelling system, a system of recognition for modified engines that comply with the CCR II and Stage V emissions standards will be introduced in the short term, based on the principle of equivalence.
2. I&W and the EICB will work out the details of a labelling system for inland vessels' emissions performance. The labelling system will be ready by spring 2020.
3. Emissions performance refers to a vessel's emissions of carbon dioxide and atmospheric pollutants. In developing the labelling system, the parameters for air pollutants will probably be worked out sooner than those for carbon dioxide. If necessary, therefore, the labelling system will be introduced in phases for these two components. This is important in terms of establishing equivalence in connection with local low-emission zones.
4. The emissions measured in a practical test will determine a vessel's emissions performance and label, not the type approval of the engine.
5. The labelling system can be used to establish a vessel's emissions performance for the purposes of, for instance:
 - a. payments from and contributions to the sustainability fund, as referred to in article 3;
 - b. local allocation of benefits to vessels with a better emissions performance;
 - c. agreeing transport contracts;
 - d. financing by banks and other financial institutions;
 - e. ongoing monitoring of emissions from inland navigation.
6. I&W, the Provincial Authorities and EICB will investigate how the emissions of inland waterway vessels can best be measured in practice. To this end, the CLINSH (Clean Inland Shipping) partners involved in this Green Deal will share the results of that project.
7. I&W will seek to ensure the labelling system is enshrined in law.

Article 5 Actions on the part of the Authorities

1. The Authorities will coordinate their actions with a view to implementation of the Green Deal via the Task Force, as referred to in article 25, in order to arrive at a consistent policy (on low-emission zones etc.).
2. I&W will support sustainability initiatives for inland navigation launched by shipowners, shippers and banks by working to ensure legislation sets out clear goals and standards, as far as is possible, concerning sustainability requirements.
3. The Authorities will seek to create scope for experiments with new technologies and circular activities. This concerns both physical scope and legislative scope by, for example, granting exemptions under more favourable terms for sustainable vessels. The Trade Associations and other relevant stakeholders will inform the Authorities of the scope for experimentation required on a case-by-case basis and in the most specific terms possible.

4. I&W will ensure that, in the context of the EU Regulation on Non-Road Mobile Machinery (NRMM) emissions,⁷ the use of Euro VI truck engines in inland vessels is facilitated and will, in consultation with the Road Transport Agency (RDW), develop a suitable procedure for confirming the equivalence of these engines.
5. The Authorities will promote the creation of adequate infrastructure – both nationally and internationally – for alternative sustainable fuels for inland shipping, such as battery stations and bunkers for sustainable biofuels.
6. I&W will incorporate the revised Renewable Energy Directive (REDII) into national law by 2021. Inland shipping will then be one of the parties to which an annual renewable energy obligation for transport applies. This will lead to a gradual increase in the mandatory blending rate for sustainable biofuels.
7. I&W will undertake efforts, in collaboration with HBR and stakeholders, to solve container terminal congestion in the Port of Rotterdam during this government's term in office, thus making container transport by water more attractive. The parties involved in the transport of containers on inland waterways will investigate the possibility of creating an overflow hub as one of the potential solutions. This will be fleshed out in the policy document on ports.
8. I&W has agreed with the Ministry of Finance that the latter's proposed Taxation Plan for 2020 will abolish the energy tax on shore power used by inland shipping. I&W and the Ministry of Finance will also jointly investigate the effects of changing the fiscal regime for electric shipping.
9. I&W will, through the efforts of Rijkswaterstaat, contribute to the logistical optimisation of the operating times of locks and bridges.
10. I&W and the Provincial Authorities will pursue an active modal shift policy and encourage the greening of the inland waterway fleet. I&W's actions will be set out in the freight transport agenda.
11. In anticipation of the establishment of a European sustainability fund for inland vessels, as referred to in article 3, I&W will shortly set up a grant scheme aimed at making inland shipping more sustainable. Within the relevant legal frameworks and in accordance with the applicable competition rules, €15 million will be available through the scheme until 31 December 2021.
12. In accordance with article 26, paragraph 1, an evaluation will be performed in 2021 to establish how these resources have been spent and whether they have had the desired effect. In the event that there is no European fund for inland vessels as referred to in article 3, additional resources will be allocated to I&W's grant scheme.
13. The Provincial Authorities will coordinate their individual greening activities with the aim of using the available provincial budgets in a more efficient and effective way.
14. At European level I&W will call for funds to be made available to the inland navigation sector.
15. I&W and HBR will contribute to the evaluation of the Maasvlakte 2 Air Quality Agreement, to be conducted by Rotterdam municipal council in the second quarter of 2019. The evaluation, designed to align with national policy, will focus among other things on the emissions standards in the Port Management Byelaws and their effects in terms of making inland shipping more sustainable.

Article 6 Actions on the part of the Trade Associations

1. BLN and CBRB will point out to their members the benefits of using alternative sustainable fuels. In anticipation of the implementation of the REDII as referred to in article 5, paragraph 6, they will encourage their members to use fuels from 2020 that, at a minimum, comply with the annual obligation for renewable fuels as set out in article 3, paragraph 1 of the Energy (Transport) Decree.
2. BLN and CBRB will encourage their members to use a uniform tool to assess carbon emissions per journey and per tonne-kilometre.
3. Building on the agreements in the work programme for the Maritime Strategy and Seaports 2018-2021, BLN, CBRB and NMT will explore alternative forms of funding, including the possibility of leasing ships' engines from manufacturers or suppliers, and introducing 'pay per use'.
4. Through their European umbrella organisations EBU and ESO and the IWT platform, BLN and CBRB will support the efforts of Central Government to ensure equal European sustainability ambitions, agreements and instruments.
5. BLN, CBRB, Evofenedex, FENEX and TLN will encourage collaboration between freight companies, shippers and expeditors/logistics companies.
6. BLN and CBRB will give advice on and support research and development projects aimed at using alternative energy carriers.
7. BLN and CBRB will encourage their members to give primary consideration to sustainability when retrofitting or building inland vessels.

⁷ Regulation (EU) 2016/1628.

8. BLN and CBRB will share their members' experiences of the benefits and drawbacks of alternative sustainable fuels with inland shipping entrepreneurs.

Article 7 Actions on the part of EICB

1. EICB will help inland shipping entrepreneurs draw up sustainability plans.
2. EICB will help the Banks draw up criteria for assessing sustainability plans.
3. EICB will take part in EU calls for programmes like Horizon 2020 and Horizon Europe, to stimulate the development of new technologies.
4. EICB will expand the remit of the EICB InnovationLab, which currently focuses mainly on air quality solutions for the existing fleet, to include carbon reduction techniques, and will facilitate talks between fuel suppliers and engine suppliers.
5. EICB will establish Communities of Practice (user groups) for proven solution directions, and will advocate the building of stakeholder communities for promising technological innovation processes.
6. EICB will develop 'Greening Tools' with transparent Total Cost of Ownership (TCO) models for inland navigation.
7. EICB will disseminate information on sustainability and innovation.

Article 8 Actions on the part of the Ports

1. BOZ and NVB will seek to achieve more uniformity in the system of differentiated rates/discounts on inland port charges in order to make inland navigation more sustainable and ensure this system is aligned with the objectives of this Green Deal.
2. BOZ will encourage optimisation of the inland shipping logistics chain, for example by participating in the NextLogic logistics platform as soon as it is operational.
3. NVB will work on a model with uniform basic principles for drafting an inland port charges ordinance, in order to remove obstacles to using inland shipping in the logistics process.
4. NVB will facilitate the expansion of shore power supply and, in accordance with demand, battery stations, as well as of the infrastructure for alternative sustainable fuels.

Article 9 Actions on the part of Shippers

1. Evofenedex, TLN and FENEX, working with BLN and CBRB, will draw up a model contract that members can use to lay down a long-term agreement with a shipowner or charterer. The model contract will include provisions on greening.
2. Evofenedex, TLN and FENEX will inform shippers and expeditors/logistics service providers of the possibilities for transport by water and will support them in making the modal shift from road to water. Evofenedex, TLN and FENEX will also participate in modal shifts projects initiated by the Authorities.
3. Evofenedex will act as a liaison in linking up existing initiatives by shippers and inspiring other shippers to join in.
4. Evofenedex will, in consultation with its members, draft a voluntary agreement on sustainable inland shipping. This voluntary agreement will include arrangements as to how shippers will contribute to the further greening of the inland navigation chain. It will also cover long-term collaboration.
5. Evofenedex will encourage its members, in anticipation of the implementation of the REDII as referred to in article 5, paragraph 6, to ask freight companies from 2020 onwards to use fuels that, at a minimum, comply with the annual obligation for renewable fuels as set out in article 3, paragraph 1 of the Energy (Transport) Decree.

Article 10 Actions on the part of NWBA and VITO

1. NWBA will work with EICB and other stakeholders to develop a tool box and technology guide on the potential for using hydrogen and fuel cell technology for zero-emission inland navigation and short sea shipping.
2. NWBA will organise a series of workshops bringing together actors from the maritime industry and the hydrogen and fuel cell technology sector in order to encourage collaboration and the creation of alliances.
3. VITO will seek to achieve a 15% reduction in fuel consumption per unit transported and a reduction in emissions. It will do so by working with the Authorities on infrastructure and on measures to make navigation more efficient. VITO will also invest in energy-efficient vessels and work to improve the organisation of container transport by inland vessels, optimising the use of the capacity available.
4. VITO will seek to use the best available technologies for cargo handling at its inland terminals. VITO will attempt to ensure that all vessels used for inland navigation at least comply with CCR II within five years.

5. VITO will strive to maximise the use of HVO (Hydrotreated Vegetable Oil) for the propulsion of inland vessels, cargo handling and transport by lorry. To achieve this objective VITO will develop an accurate mathematical model to make the additional costs transparent to individual customers.

Article 11 Other and joint actions

1. I&W, BLN and CBRB will work actively at European level, including via EBU, ESO and the IWT platform, to garner support for the introduction of a mandatory biofuel blending target for inland shipping, with a gradual increase in the mandatory blending rate.
2. The Parties will, where possible, work at international level to ensure the goals and ambitions of this Green Deal are achieved.

Part II Maritime shipping

Article 12 Priority actions on the part of maritime shipping

1. With due regard for article 28, KVNR and VVW will annually provide information on the aggregated carbon emissions of their affiliated fleet. The first report, on 2019, will be published on 1 July 2020.
2. NMT will provide clarity on available sustainable maritime solutions by 1 January 2020. These solutions will be published on: www.sustainable-maritime-solutions.nl. NMT will keep this website up-to-date.
3. Knowledge institutions will work with industry to clarify and validate the effects of the sustainable maritime solutions so that they can be easily compared, helping shipowners and financiers come to a decision on them.
4. I&W has agreed with the Ministry of Finance that the latter's proposed Taxation Plan for 2020 will abolish the energy tax on shore power used by shipping. I&W and the Ministry of Finance will also jointly investigate the effects of changing the fiscal regime for electric shipping.
5. Knowledge institutions and industry partners will jointly design a zero-emission maritime vessel, including a convincing business case, by 2024. Ongoing and new research and development projects financed from national and European resources will contribute to this effort. In addition, every effort will be made to use existing I&W and EZK grant schemes for sustainable projects in the maritime sector.
6. When purchasing vessels during the term of this Green Deal, I&W and Defence will carefully assess the viability of choosing the most sustainable solution, in terms of its importance and potential, as well as its financial feasibility. This assessment will be made after consultation with research institutions and industry, and operational interests will take precedence.
7. Before 1 January 2021 KVNR, Evofenedex, BOZ and NMT will jointly develop a targeted strategy for encouraging industry and consumers to sell and buy products transported by water with zero emissions. This 'Blue Shipping' marketing strategy may include 'Blue Shipping: zero emissions' product labelling.
8. KVNR, Evofenedex and BOZ will investigate scope for zero-emission trade lanes before 1 January 2022 and to this end conclude long-term agreements between specific producers, shippers, shipowners and ports.

Article 13 Actions on the part of the Authorities

1. During the term of the Green Deal, I&W's Government Shipping Company will commission three seagoing vessels powered by electric engines. These vessels will also run partly on biofuel.
2. I&W's Government Shipping Company will select parties for the construction and maintenance of seagoing vessels based on the most economically advantageous tender (MEAT) criteria, with sustainability as one of the main criteria.
3. At international level I&W will call for the adoption of carbon reduction measures. In connection with this, I&W will within the framework of the IMO pursue the introduction of a global carbon emissions tax, i.e. a fuel levy. I&W will also call for the revenues from this levy to be used for an international fund or other incentive scheme to promote and accelerate research, rollout and installation of innovative sustainable maritime solutions.
4. I&W will strive for the removal of national and international legislative obstacles to the use of alternative sustainable biofuels and hybrid systems in maritime shipping.
5. At international level I&W will advocate the use of alternative, sustainable marine fuels, such as LNG (and bio-LNG), sustainable biofuels or synthetic fuels, hydrogen and hybrid systems.
6. I&W and Defence will step up the launch customership by the Government Shipping Company and the Royal Netherlands Navy in support of efforts to achieve climate goals and to reduce the logistical footprint of their fleets. In each case, Defence will examine the extent to which a launch customership can be incorporated into a project, based on materiel requirements and taking into account the Defence Industry Strategy. Central Government, industry and research institutions (the 'golden triangle') will maintain close contacts on this matter, which will give industry the opportunity to position itself internationally, among other things.
7. I&W will strive for the establishment of low-emissions zones in all European waters, in the interests of a level playing field.
8. In 2019 Defence will test on-board blending of biofuels on a navy vessel, to establish whether this could be routinely done on as much of the fleet as possible.
9. Besides using three hybrid tugs, Defence will conduct a study into the scope for emissions-free navigation by smaller navy support vessels in particular.
10. Defence will purchase 100% sustainable shore power for all of its vessels in the port of Den Helder.

Article 14 Actions on the part of Trade Associations

1. KVNR, NMT and VVW will advise their members to give due consideration to sustainability and innovation as key criteria in tendering procedures for refitting vessels. They will also request that their members make sustainability a primary consideration when commissioning new vessels.
2. KVNR will encourage its members to launch at least one zero-emission maritime vessel by 2030.
3. KVNR and NMT will ask their members to share their experiences of introducing green innovations on board new and existing vessels with producers, so that the innovations can be improved.
4. KVNR and NMT will also actively call for the introduction of a global fuel levy, both among their members and at their international umbrella organisations, as referred to in article 13, paragraph 3.

Article 15 Actions on the part of BOZ

1. BOZ will conduct a study into innovative, scalable concepts for mobile and fixed shore power.
2. BOZ will seek to optimise the Environmental Ship Index (ESI) and Green Award, to better align the discounts awarded on port charges with the objectives of this Green Deal.
3. BOZ will seek to optimise the chain by further developing digital tools and improving cooperation in the chain.
4. BOZ will enter into negotiations with KVNR and terminals to establish whether the just-in-time principle can be implemented across the organisation and to establish whether it is possible to join an international programme that endorses this principle.

Article 16 Actions on the part of the Shippers

BICEPS Network, Evofenedex, TLN and FENEX will actively encourage their members to provide clear information on the emissions that occur during maritime transport, what reduction targets have been set, and what progress they are making towards achieving those targets.

Article 17 Actions on the part of the Banks

Banks will devise their own method of performing a baseline measurement of their maritime shipping clients, with the aim of monitoring emission reductions within individual maritime shipping portfolios.

Article 18 Other and joint actions on the part of maritime shipping

1. In Brussels I&W and EZK, in collaboration with NMT, KVNR and NML, will call for the sustainability of maritime shipping to be given priority in programmes like Horizon 2020 and the Connecting Europe Facility (CEF).
2. BOZ and I&W will make a joint effort to stimulate the use of renewable marine fuels, through the implementation in the Netherlands of the REDII Directive. BOZ will where possible promote the use of LNG as a transitional fuel.
3. BOZ, in collaboration with I&W and EZK, will pursue international agreements on incentive programmes for carbon reduction, the establishment of low-emissions zones at ports in Northwest Europe and promotion of climate-friendly trade lanes between the Netherlands and the Baltic.
4. During the term of this Green Deal KVNR will organise several meetings in collaboration with NMT, Evofenedex and their members with a view to exploring potential 'green' business cases for Dutch maritime shipping.
5. The Green Award Foundation and KVNR will investigate whether smaller dry cargo vessels can be included in the Green Award programme.
6. As an independent innovation and knowledge platform, PDB will initiate efforts with parties in the sector and with knowledge institutions to further develop the knowledge base for the use of renewable fuels in the shipping sector.
7. LNG Platform will gather and share national and international research results on the potential for reducing methane slip released from ships powered by LNG, by using dual fuel engines, for example.
8. Shell will, in collaboration with the Ports and other stakeholders, explore the extent to which the production of biofuels (including bio-LNG) can be accelerated in order to make maritime shipping more sustainable.
9. As the owner of offshore wind farms and as a producer and supplier of marine fuels, Shell will take the initiative to explore, along with other market parties, the extent to which offshore wind energy can be converted into hydrogen and the extent to which this hydrogen can subsequently be supplied to shipping as part of the energy transition process.
10. ProSea will develop, test and organise three pilot workshops, in coordination with I&W, on carbon emission reductions and fuel savings, taking the experiences and ideas of crews as their starting point. The goal will be to

devise, implement and monitor a workable reduction plan in collaboration with crews and all those involved at shipping companies, in order to make operations more energy-efficient.

Part III Applicable to both maritime and inland shipping

Article 19 Actions on the part of Central Government pertaining to both sectors

1. I&W will step up its role as launch customer via the Government Shipping Company, with the aim of having at least one innovative zero-emission vessel in service by 2030.
2. I&W's Government Shipping Company will use fuel containing 30% sustainable biofuel (HVO) for its seagoing fleet and will scale up the use of certified alternative fuels where possible. I&W's Government Shipping Company will share its experiences with Dutch shippers and shipowners, through BLN, CBRB and KVNR.
3. In collaboration with research institutions, I&W's Government Shipping Company will, for the duration of this Green Deal, conduct research into alternative means of propulsion and energy carriers such as hydrogen and batteries, and their financial impact, ultimately with the aim of achieving zero-emission fleet.
4. I&W will work at international level (IMO, CCR and the EU) to secure ambitious agreements on increasing the sustainability of maritime and inland shipping, with the goal of promoting investment security and preserving the global level playing field.
5. I&W and EZK will contribute to efforts to make maritime and inland shipping more sustainable through their existing IDB, SDS and DKTI-Transport schemes. When grant schemes are revised, the possibility of opening them up to maritime and inland shipping will be considered, with a particular focus on sustainability.
6. EZK will have the Netherlands Enterprise Agency (RVO) survey which financing schemes and resources are currently available to maritime and inland shipping enterprises, and will also explore options for future funding instruments. Should the envisaged funding instruments not become available, I&W will enter into talks with the Parties about carrying out the actions they have undertaken in this Green Deal.
7. The Ministry of Finance can use export credit insurance and investment guarantees for maritime and inland shipping, subject to the prevailing export credit insurance policy frameworks. The Ministry of Finance will assess applications on their individual merits.
8. I&W is prepared to make a fund available of up to €1 million a year for the assessment and validation of technologies referred to in article 23, paragraph 4, for the duration of the Green Deal and within the relevant legal frameworks and competition rules.

Article 20 Actions on the part of the Ports pertaining to both sectors

1. BOZ will use the instruments at their disposal to promote the cleanest maritime and inland vessels in their ports.
2. BOZ will promote initiatives and, where possible, contribute to the provision of enough bunker facilities and infrastructure for alternative sustainable fuels, such as biodiesel, LNG, hydrogen and hydrogen fuel cells, and facilities for shore power and battery exchange.

Article 21 Actions on the part of the Shippers pertaining to both sectors

1. BICEPS Network, Evofenedex, TLN and FENEX will encourage shippers and expeditors/logistics service providers to use tools that give insight into the sustainability of inland and maritime vessels, such as the Green Award system, the BICEPS rating system developed by BICEPS Network, the Clean Shipping Index and the future labelling system.
2. BICEPS Network, Evofenedex, TLN and FENEX will make every effort to ensure that their affiliated shippers and logistics service providers use sustainability as a selection criterion contracting shippers and shipowners. With regard to tendering procedures, they will facilitate the removal of obstacles to the greening of ships and shipping routes and encourage the inclusion of incentives, such as premiums for the use of clean ships or for the realisation of a clean and energy-efficient freight transport route.
3. BICEPS Network, Evofenedex, TLN and FENEX will encourage their members to help ensure that investments in sustainability in the maritime sector are bankable, for instance by using cleaner vessels to transport goods as often as possible and by entering into long-term contracts where possible with shippers and shipowners who are prepared to invest in the greening of their vessels.
4. BICEPS Network, Evofenedex, TLN and FENEX will investigate the possibility of shifting the focus in the transport system from speed to sustainability. This would allow higher rates to be charged for sustainable transport, and enable sustainability to become a factor in the selection of freight companies, based on their emissions performance.
5. BICEPS Network and Stichting Green Award will make carbon a visible element of their assessment system.

Article 22 Actions on the part of the Banks pertaining to both sectors

1. The Banks will seek to expedite the process of making maritime and inland shipping more sustainable by actively seeking dialogue with their clients, and joining with them in seeking opportunities for greater sustainability, complete with an investment plan for the greening of their vessel or vessels. The principle is that business operations must always be financially balanced (and sustainable). Decisions on loan applications will take into account the company's contribution to the sustainability of the sector.
2. The Banks will use existing facilities like Groenbank, EIB instruments and alternative funding instruments for the purposes of greening/sustainability.

Article 23 Actions on the part of the Knowledge Institutions pertaining to both sectors

1. The Knowledge Institutions will, on request, assist the Green Award System, the BICEPS rating system and the Clean Shipping Index in making agreements on standardisation and tools for comparing the sustainability performance of different ships and shipping routes for freight transport.
2. The Knowledge Institutions will make their research facilities available to members of NMT to test newly types of engines and technologies. Jointly with members of NMT they will also set up case studies to investigate and compare various sustainable maritime solutions, with a view to arriving at certification.
3. The Knowledge Institutions will collaborate with shippers, shipowners and maritime suppliers to work out proposals for early-stage innovations aimed at developing zero-emission vessels, and will set up case studies to investigate and compare various innovations and technologies, with a view to arriving at certification of sustainable solutions.
4. As independent knowledge institutions, MARIN and TNO will work with NMT on the assessment and validation of the effects of sustainable maritime solutions.
5. With basic funding to cover the risks of exploratory research, MARIN and TNO will work out proposals for early-stage innovations aimed at developing zero-emission vessels, and will use their knowledge to evaluate and improve initiatives by the maritime sector.

Article 24 Joint and other actions pertaining to both sectors

1. I&W and BOZ will employ sustainability as a key criterion in tendering procedures for infrastructural activities (such as dredging and the maintenance of waterways and ports), so that contractors that are able to fulfil such contracts with lower emissions are given preferential status.
2. I&W's Rijkswaterstaat will include an award criterion of 30% carbon emission reductions relative to the current emissions of conventional methods in the most economically advantageous tender system for public procurement of maintenance contracts for six sea access channels.
3. KVNR, NMT and the Knowledge Institutions will seek to draft an innovation roadmap, in consultation with offshore installation companies, EZK and I&W. To this end, the Parties to the Green Deal will consult with the offshore wind farm sector later this year to determine when requirements for zero-emission navigation can be included in the permit conditions for offshore wind farms.
4. As a producer of green hydrogen in ports and a buyer of inland shipping logistics services, Nouryon will explore, with other market parties, the scope for storing and supplying green hydrogen for use by maritime and inland vessels and ports. This will be included in its plans for scaling up water electrolysis for industry.

3. Cooperation

Article 25 Task Force

1. No later than two months after this Green Deal is signed, I&W will invite the Parties to establish a Task Force. The Task Force will be established no later than four months after this Green Deal is signed.
2. The Task Force will include representatives of the Authorities, the Trade Associations, the Ports and EICB.
3. The Task Force will be responsible for coordinating and aligning the implementation of the Green Deal, focusing on both its national and international dimensions.
4. The Task Force will compile and regularly update a list of pilot projects that are relevant to efforts to make maritime and inland shipping more sustainable.
5. A secretariat will be set up to support the Task Force.
6. The Parties will, during the period mentioned in paragraph 1, make further practical arrangements concerning the membership, the duties, the secretariat and the procedures of the Task Force and the funding of its activities. The Task Force will convene at least twice a year. The membership and procedures of the Task Force will be aligned as closely as possible with the organisational structure of previous Green Deals.

Article 26 Evaluation

1. The Parties will evaluate the implementation and impact of this Green Deal by 1 January 2022. The evaluation will be performed by the Task Force.
2. The Task Force will draw up a report that will in any case examine whether the goals of the Green Deal have been or are being achieved. The Parties will decide on the basis of this report whether the Green Deal should be amended or extended.

4. Concluding provisions

Article 27 Implementation in accordance with Union law

The agreements in this Green Deal and their further elaboration will be implemented in accordance with international law, Union law and Dutch law, particularly insofar as the agreements are subject to international, European and Dutch rules pertaining to tendering procedures, competition, state aid and technical standards and requirements.

Article 28 Exchange of data

1. The Parties will ensure that the provision of any personal or other data, such as company data and commercially sensitive information, and the processing of such data in the context of this Green Deal are in compliance with the applicable European and national legislation concerning data. The exchange of data between the Parties may not lead to the exchange of competition-sensitive information, either directly or indirectly through the mediation of the Task Force.
2. For the purposes of data provision the Parties will draw up one or more protocols, setting out arrangements for the sharing of information and ensuring compliance with the applicable European and national legislation, such as the General Data Protection Regulation and the Government Information (Public Access) Act.

Article 29 Amendments

1. Any Party may request the other Parties, in writing, to amend this Green Deal. Amendments will require the written consent of all Parties.
2. The Parties will enter into negotiations no later than six weeks after a Party has informed the other Parties, in writing, of their wish to do so.
3. Copies of the amendments and the statements of consent will be appended to this Green Deal and published in the Government Gazette (*Staatscourant*).

Article 30 Withdrawal

Any Party may withdraw from this Green Deal, in writing, taking into account a notice period of one month.

Article 31 Compliance

The Parties agree that compliance with the agreements in this Green Deal is not enforceable by law.

Article 32 Entry into force

1. This Green Deal will enter into force the day after it is signed by all Parties and have a duration of five years.
2. The Parties will begin implementing all the agreements set out in this Green Deal as soon as possible.

Article 33 Publication

Like all other Green Deals, this Green Deal will be published in the Government Gazette (*Staatscourant*) and elsewhere, so that others have access to the Green Deals, so that it can be emulated.

Article 34 Admission of new parties to this Green Deal

1. New parties may join this Green Deal.
2. A prospective new party must submit its request to join the Green Deal to the Task Force secretariat in writing. In its request, the new party will undertake to participate in one or more of the actions, or to devise an additional action itself.
3. The Task Force secretariat will issue a recommendation concerning the new party's request, taking account of the fact that any potential new party must endorse the objectives of the Green Deal and may not violate the existing character of the Green Deal. The recommendation will be non-discriminatory.
4. As soon as Central Government and at least 75% of the other Parties have made it known to the Task Force secretariat that they agree to the request, the new party will acquire the status of Party to the Green Deal and all rights and obligations ensuing from the Green Deal will apply to that Party.
5. The request to join and the statement of consent will be appended to the Green Deal.

6. With the exception of Central Government, the Parties hereby mandate the chair of the Task Force to give consent to the admission of new parties on their behalf, once the procedure described in paragraphs 3 and 4 has been completed.

Article 35 Annex

The annex is not an integral part of the text of this Green Deal.

Article 36 Name of this Green Deal

This Green Deal may be cited as the Green Deal on Maritime and Inland Shipping and Ports.

Duly agreed and signed in duplicate at The Hague on 11 June 2019.

Annex: Pilot projects

The annex to this Green Deal presents a number of pilot projects as examples of relevant efforts to make maritime and inland shipping more sustainable. It is a non-exhaustive list, as technological progress is a continuous process. Since these and future pilot projects will play a key role in achieving zero-emission navigation, the Green Deal Task Force will draft a list of all relevant projects and keep it up to date. Based on this list the Task Force will encourage the exchange of knowledge and collaboration between pilot projects and identify what support measures are required.

The following organisations have indicated that they intend to conduct pilot projects during the term of this Green Deal in order to help achieve the Green Deal's goals:

1. NPRC will use 'Data Driven Logistics Optimisation' (DDLO) to develop smart digital tools for freight companies and shippers to enhance the efficiency of transport by inland vessel as part of the logistics chain. NPRC will also launch a hydrogen pilot project on board an inland vessel as part of the Inland Navigation Hydrogen Coalition (*Waterstofcoalitie Binnenvaart*).
2. Heineken, ING, ENGIE, Port of Rotterdam, CCT, Wärtsilä, Eneco and BCTN have formed the Green Circles coalition whose goal is to use Modular Energy Concepts (MEC) to achieve zero-emission inland navigation. To this end, it will put four zero-emission demonstration vessels into service in the South Holland green corridor in 2019. This will be scaled up to 50 vessels between 2020 and 2025. Innovations will be reflected in the technology used and the separation of investment and business models for transport (by ship) and energy (container as physical unit). The project will also aim to establish a company for energy storage.
3. Organisations including Delft University of Technology, TATA Steel and Port of Amsterdam have launched the H2 CARGOSHIP hydrogen pilot as part of the Private Transport Cooperative (PTC). A pilot project will be conducted with a hydrogen-powered barge, where the hydrogen is stored in powdered form. The project aims to establish whether hydrogen fuel cells are financially, technically and operationally feasible and scalable for ships. It will also explore questions concerning the transshipment and bulk storage of hydrogen and the port facilities required for this, in collaboration with shippers, freight companies, cooperatives and knowledge institutions. The project will continue into 2022.
4. Twynstra Gudde, NMT, ferry operators' association VEEON, the municipality of Amsterdam, South Holland provincial authority and Overijssel provincial authority have formed a zero-emission ferries coalition, which is working up four zero-emission case studies into demonstration projects that will put vessels into service no later than 2023. To this end, the partners are setting up a national programme, supported by public and private parties at national, regional and local level, with European involvement where possible.
5. CoVadem Services BV will work to scale up of a system for collective depth measurements and performance monitoring. In collaboration with research partners MARIN and Deltares, they are continually finetuning the system. The aim is to achieve application across all the inland waterways, including the Rhine, with a short-term reduction target of 5%. Over the next two years CoVadem will scale up from 50 to over 250 vessels taking measurements on the Rhine.
6. After the installation of shore power facilities along the Caland Canal in the Port of Rotterdam, Heerema Marine Contractors SE will equip one or more crane vessels to run on shore power, with a view to stopping, within the term of the Green Deal, almost all noise and emissions to air from its crane vessels while they are moored up in the Caland Canal.
7. Rivermaas BV, Vertom UCS Holding BV, The GoodShipping Program and HBR will seek to carry out a joint pilot project during the term of the Green Deal, testing climate-friendly maritime shipping. Specifically the project will involve the sustainable transport of goods between the Netherlands and the Baltic states, for instance by using biofuels and other sustainable alternative fuels.
8. Future Proof Shipping BV will seek to launch at least six zero-emission inland vessels and two zero-emission short sea shipping vessels over the next three years.
9. Boskalis, the Royal Netherlands Navy, Van Oord, Wagenborg Shipping, Damen Shipyards, Feadship, Royal IHC, Pon Power, Wärtsilä, VIV, Marine Service Noord and C-Job Naval Architects are among the parties in a consortium covering the entire chain, which will conduct a project known as Green Maritime Methanol to explore the potential of methanol as an alternative sustainable transport fuel. HBR, HBA, BioMCN, Helm Proman and the Methanol Institute will represent the infrastructure and supply chain for methanol. TNO, Delft University of Technology, NLDA, MARIN and MKC will provide scientific know-how and research capacity. The project will cover operational profiles, ship configurations, engine configurations, performance and emission values. Central Government will look into the legislative aspects of using methanol in shipping and will also identify funding opportunities.

10. We4Sea BV is scaling up a software platform for real-time fuel performance and CO₂ monitoring for charterers and shipowners. The system is being continuously improved with input from shipping companies, charterers and knowledge institutions. The aim is for the platform to be broadly applied in the shipping sector, with a short-term carbon reduction target of 5%. Over the next two years We4Sea will scale up from 50 to over 250 seagoing vessels.
11. PortLiner will commission 15 battery-powered vessels over the next two years. PortLiner will also start retrofitting its existing ships to make them fully electric and zero-emission. It will invest in the construction of the charging infrastructure required for this alternative fuel, to enable broader use of the technology.