Norwegian Petroleum Governance: An Inspiration for Space Resource Governance?

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Abstract

This paper highlights four lessons learned from the Norwegian Petroleum Governance system which could be relevant when discussing space resource governance.

1. Introduction

When looking for potential models for space resource governance, many have examined how global commons are governed. This paper will look at an example of the governance of resources under one nation's jurisdiction – which has the aim to share the benefits with a larger group. There are obviously significant differences between governing global commons and national areas. This paper will not discuss this, but instead simply seek to highlight four lessons learned from Norwegian Petroleum governance.

This is not a position paper,[1] but simply some observations by the author meant as 'food for thought' for the debate on how to develop the governance framework for space resource activities, by providing an alternative perspective.

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1 Those interested in the Norwegian perspective on space resources, are encouraged to consult the Norwegian input to the UN Working Group on Space Resources, available here: *https://www.unoosa.org/oosa/oosadoc/data/documents/2023/aac.105c.22023crp/aac.105c.22023crp.19_0.html*.

2. Lesson 1: It Is Possible to Combine Policies for Benefit-Sharing and a Market Economy

Norway discovered large petroleum reserves in 1969, this changed the country dramatically. Petroleum is today the predominant sector in Norway measured in value creation, government income, investments, and percentage of exports.[2]

The petroleum activities have transformed some local communities. The town of Stavanger, is perhaps the foremost example of this, going from a struggling shipbuilding and canned fish economy to a high-tech offshore economy within half a century.[3] In 1972 Stavanger was officially declared the oil capital of Norway, and today a significant part of the oil industry is based there.

Looking back, it is generally acknowledged that: Stavanger's politicians and business community stood shoulder to shoulder in efforts to facilitate the oil industry. An appropriate term for the period since 1965 is the 'politics of unanimity'. The emphasis has been on consensus and on reaching common goals.[4]

This facilitated for industrial activities and job creation, but also the development of necessary local infrastructure, such as roads, housing, and schools to support the workforce needed for the new activities.

The flurry of activities that followed also benefitted the local population. To use an anecdotal example; my own grandfather grew up on a farm two hours outside of Stavanger, there were little resources to go around and no electricity. In fact, my great-grandfather had to sail to North America to be able to provide for the family. Within a fifty-year span, my grandfather got a job in the oil sector and became part of the middle class. This is a story that is quite representative for the region. However, the sector did not only benefit industry, local communities and individuals directly involved. In fact, much of Norway's economic success and extensive social security system is possible due to the income generated by petroleum activities. Historically, there have been some reiterations, but throughout the overall policy objective has been centered around the aim to: 'Provide a framework for the profitable exploitation of oil and gas in the long term, where the value creation shall benefit the whole of the Norwegian society – including future generations.'[5]

2 Norskpetroleum.no (2023) "Statens inntekter" Link: *Statens inntekter*.

3 Industrial Heritage Ekofisk (2023) "Society: How Oil changed the Stavanger region" Link: *https://ekofisk.industriminne.no/en/how-oil-changed-the-stavanger-region/*.

4 Ibid.

5 Norskpetroleum.no (2023) "*Framework*", Link: *https://www.norskpetroleum.no/en/framework/*; This is the website created by the Norwegian Petroleum Directorate and Norwegian Ministry of Petroleum and Energy to provide information on Norwegian Petroleum activities.

The main mechanism for this policy objective is the Government Pension Fund Global, popularly, and hereinafter, referred to as the 'Oil Fund'. In practical terms the Oil Fund derives its input from a rather complex tax scheme which will not be detailed here. However, as summarized by the Norwegian Petroleum Directorate:

To ensure that value creation benefits Norwegian society to the greatest possible extent, the tax rate for oil and gas companies is 78%. The petroleum taxation system is based on ordinary company taxation (currently 22%), but an additional special tax is levied. One key consideration in designing the petroleum taxation system was to ensure that incentives for companies to make investments were maintained. Projects that are profitable for society should also be profitable for the oil companies.[6]

The policy development for the sector has by necessity had a strong focus on creating responsible macroeconomic and fiscal policies. This is needed to ensure the responsible long-term management of the substantial wealth generated and the economic development for the Norwegian society at large.[7] Subsequently, there has been an evolution in how the income from this tax was used.

In the 1970-1980s the income from oil production was transferred directly into the national budget, making the budget planning very sensitive to changes in the oil price. When the oil price took a hit in the late 1980s, the Norwegian economy suffered to such an extent that it became evident that a new model for managing the income was needed.[8]

Thus, the Oil Fund was created by Parliament in 1990,[9] with the first income transferred in 1996.[10] The idea simply explained is that instead of transferring the money directly into the national budget, the money would be put into the Oil Fund. Then a percentage of the real return of the Oil Fund is transferred to the central government budget every year. Thereby benefitting the whole population, while avoiding overspending and making the national budget less sensitive to changes in the oil price. This also facilitates for long-term wealth management which will benefit future generations. Especially as

6 Norskpetroleum.no (2023) "*Fundamental Regulatory Principlec*" link: https://www.norskpetroleum.no/en/framework/fundamental-regulatory-principles/

7 Official Norwegian Reports NOU 2015:9 Chapter 1 (2015) "*Fiscal Policy in an Oil Economy*".

8 Official Norwegian Reports NOU 2015:9 Chapter 1 (2015) "*Fiscal Policy in an Oil Economy*". p. 39.

9 Parliament (1989-1990) "*Lov om statens petroleumsfond (oljefond)*" Link: *https://www.stortinget.no/no/Saker-og-publikasjoner/Saker/Sak/?p=6070.*

10 Store Norske Leksikon (2023) "*Statens Pensjonsfond Utland*" link: *https://snl.no/Statens_pensjonsfond_utland.*

the management of the Oil Fund has been quite successful, and it is today one of the largest sovereign wealth funds in the world.[11]

The Oil Fund was designed to facilitate for long term investments, but in a way that made it possible to draw on it when required.[12] However, to set some boundaries, from 2001 a politically decided fiscal limit was put in place. At maximum an approximate 3% of the real return of the fund is to be transferred into the annual national budget.[13] As oil and gas are non-renewable resources, it was desired to put in place a mechanism that would also ensure that future generations reap the benefits of the resources we extract today – for which this fiscal rule is a central mechanism. This set-up gives the government room for some fiscal maneuvers should the oil price drop or the main land economy contract.[14] For example, during the covid pandemic, the government spent more oil money than usual through the national budget to support economic stimulus and emergency measures.[15]

A principle from the very beginning was that the Fund should only invest outside of Norway, to avoid an overheating of the Norwegian economy. In addition, an ethical policy has been developed to dictate what the Oil Fund should and cannot invest in. In short, this stipulates that the investment shall be managed with an aim to secure lasting value creation for current and future generations, which allows for quite long investment horizon into strategic portfolios.[16] In addition, the Oil Fund shall not invest in companies that contribute to serious violations of ethical norms as defined by guidelines specified by the Ministry of Finance and endorsed by the Norwegian Parliament.[17]

Lesson learned: In addition to being a mechanism for benefit sharing, the governance system and Oil Fund are mechanisms for broader Norwegian policy goals, macroeconomic policies, and wealth management. This illustrates that it is possible to combine policies of benefit-sharing with a system that also incentives commercial activities and a market economy,

11 Børsen (2022) "*Vippet ned fra tronen*" Link: *https://borsen.dagbladet.no/nyheter/vippet-ned-fra-tronen/77614928*.

12 Ibid.

13 NOU 2015:9 (2015) "Finanspolitikk i en oljeøkonomi – praktisering av handlingsregelen".

14 The Norwegian Central Bank (2023) "The Fund: The History" Link: *https://www.nbim.no/en/the-fund/the-history/*.

15 E24 (12.05.20) "Regjeringen bruker 241 milliarder på koronatiltak" Link: *https://e24.no/norsk-oekonomi/i/50KlJb/regjeringen-bruker-241-milliarder-paa-koronatiltak*.

16 Norskpetroleum.no (2023 "Management of revenues" Link: *https://www.norskpetroleum.no/en/economy/management-of-revenues/*;

17 Norskpetroleum.no (2023 "Management of revenues" Link: *https://www.norskpetroleum.no/en/economy/management-of-revenues/*;" Government (2022) "Ethical Guidelines" Link: *https://www.regjeringen.no/en/topics/the-economy/the-government-pension-fund/responsible-management/ethical-guidelines/id447009/*.

which will be further elaborated on in lesson 3. For space resources a similar mechanism could be interesting to explore and discuss.

3. Lesson 2: The Real Luck for the Average Norwegian Was Not in Itself the Discovery of Petroleum Resources, But the Policies Developed to Govern It.

It is often said that Norway is rich due to oil and gas, and this is of course an important part of it, but as indicated in the previous lesson – wealth management and responsible socioeconomic policies are just as important. As such, for the average Norwegian citizen the real stroke of luck was not the discovery of oil and gas, but that the relevant policymakers had the craftmanship and foresight to put in place a governance system where the riches from the activities benefit the Norwegian society at large – and not just a few *privileged individuals. As some have called it – this was 'a bureaucratic masterpiece'*.[18]
The policy at the core of the Norwegian success, shares a similar sentiment to Art. I of the Outer Space Treaty:

> The exploration and use of outer space, including the Moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind.

The space sector is often lauded as one of the most innovative and bold sectors, meant to offer inspiration as to what humanity can achieve. This should also be true for the laws and policies we strive to implement to govern space activities. The UN Space Treaties, developed during politically tense times, have quite some idealistic sentiments, and are a good reminder of what is possible and a baseline for how we should approach space governance. Going forward, these principles need to be operationalized, and ideally there should be a broad political consensus of how to interpret the core aspects.
Lesson learned: In this context, the lesson from the Norwegian petroleum sector is that policymakers are crucial in creating and shaping the impact of resource exploitation for generations to come. Which requires a political consensus of core tenants from the start. Craftmanship, consensus and vision are essential to develop systems which can develop, adapt, and stand the test of time. Looking back 50 years later, the Director General for the Norwegian Petroleum Directorate in 2015 said: 'The assessments made at the time were

18 University of Oslo, Institute for Political Science (2015) "*50år som oljenasjon – en hyllest til byråkratene som gjorde det mulig*", *https://www.sv.uio.no/isv/forskning/aktuelt/blogg/ta-politika/2015/oljenasjonen.html.*

sound. They had a clear vision of how any potential resources, and management thereof, would benefit the Norwegian people.'[19]

4. Lesson 3: Focus First on Quickly Establishing Core Principles, with an Evolutionary Approach in Mind

4.1. Before Finding Petroleum Resources

As with space mining, the early years of petroleum activities in Norway were associated with significant uncertainties. Many saw it as a utopian dream not to be taken seriously. Even fewer, if any, foresaw the extent of how it would shape the Norwegian economy and society long-term. Thus, there was little interest in a large public debate on how to regulate it, but nevertheless a regime emerged which was developed over time.

In the 1960s, Norway was contacted by foreign corporations who wanted to conduct seismic exploratory activities on the Norwegian continental shelf for oil and gas.[20] They wanted a similar deal as was granted to companies in some other countries: the sole right to drill in the Norwegian sector.[21]

However, Norway had a strong history of public ownership over natural resources. For example, the Norwegian legislation on hydropower at the time stated that energy resources should be subjected to public ownership and control.[22] As such the request for sole rights was rejected and public control and ownership was also established over petroleum resources.

This decision was essential for developing a regulatory regime and benefit sharing system in the future, but also an essential step in rejecting an industrial monopoly and ensuring market competition. With the rejection of the sole right to drill, the Norwegian government decided to develop a concession and licensing system. Thus, on the 9th of April 1965, a Royal Decree[23] specifying rules for exploring and exploiting submarine natural resources was declared.

The reason for a decree rather than an act can be summarized in two points. First, the legislative process for an act was seen as too slow and could potentially block the process for initiating the activities.[24] Second, there was substantial skepticism to whether there actually were any petroleum resources on the Norwegian continental shelf. A fear which grew, as years

19 Norwegian Petroleum Directorate (2015) "*50th anniversary of the first licensing round", https://www.npd.no/en/whats-new/news/general-news/2015/50th-anniversary-of-the-first-licensing-round/.*

20 Store Norske Leksikon (2023) "*Norsk Oljehistorie*", *https://snl.no/Norsk_oljehistorie.*

21 Store Norske Leksikon (2023) "*Norsk Oljehistorie*", *https://snl.no/Norsk_oljehistorie.*

22 (1909) "*Lov om erhvervelse av vandfald, bergverk og anden fast eiendom*".

23 Royal Decree of 9 April 1965 relating to Exploration for and Exploitation of Petroleum Deposits in the Sea-Bed and its Subsoil on the Norwegian Continental Shelf.

24 Norges geologiske undersøkelse (NGU) i et brev til Utenriksdepartementet 25. februar 1958.

went by without any reserves viable for exploitation being found. These fears were backed by the Norwegian Geological Survey who submitted a letter to the Norwegian Foreign Ministry, stating: '*One can ignore the possibility that there would be coal, oil or sulfur on the continental shelf along the Norwegian coast*'.[25] This statement did not age well.
The royal decree of 1965 can be said to do four things:

1. Ensure thorough exploration,
2. a reasonable financial outcome for Norway,
3. (establish) government control and acceptable exploitation of resources,
4. and (ensure) that the industry did not cause inconvenience to other activities or hinder acceptable technical safety.[26]

The royal decree was the legal basis for the first concessions round but was complemented with the Tax Act of 11 June 1965 (which determined the level of taxation) and the production licenses awarded on 17 August 1965 (which specified the rights and obligations of each licensee).[27]
The first concession round was huge and resulted in 22 permits, for 74 fields, granted to nine companies and consortiums.[28] It set up a system which could grant license holders exclusive rights to conduct exploration and drill, and it granted ownership of the extracted resources in a specific area. But it also obliged them to conduct a certain number of exploratory activities within a set time.[29] In addition, the government established a right to collect geological data and samples from the operators.[30] Since then, a more complex regime including exploration and exploitations licenses emerged, but this will not be detailed in this paper.

25 Norges geologiske undersøkelse (NGU) i et brev til Utenriksdepartementet 25. februar 1958.
26 Industrial Heritage (2020) "The first licencing terms specified". *https://frigg.industriminne.no/en/2019/12/12/first-licensing-terms-specified/*.
27 Industrial Heritage (2020) "The first licencing terms specified", *https://frigg.industriminne.no/en/2019/12/12/first-licensing-terms-specified/*; Norskpetroleum.no (2023) "*Norsk Petroleumhistorie*", *https://www.norskpetroleum.no/rammeverk/rammevilkarpetroleumshistorie/*.
28 Store Norske Leksikon *"Norsk Oljehistorie"* Link: *https://snl.no/Norsk_oljehistorie*; Norwegian Petroleum Directorate (2015) *"50th anniversary of the first licensing round"*, *https://www.npd.no/en/whats-new/news/general-news/2015/50th-anniversary-of-the-first-licensing-round/*.
29 Norsk Petroleumhistorie (2023) "*Konsensjonssystemet*", *https://www.norskpetroleum.no/rammeverk/rammeverkkonsesjonssystemet-petroleumsloven/*.
30 Royal Decree 9th April 1963, Chapter 5, Section 42-44. Norwegian Petroleum Directorate (2023) "*Seismic Surveys*", *https://www.norskpetroleum.no/en/exploration/seismic-surveys/*.

As with space activities, offshore petroleum extraction is technically complicated and capital-intensive. This proved particularly true for petroleum extraction off the coast of Norway, where harsh winters and the weather in general proved challenging for the companies.[31] As such the government was conscious of not strangling an industry in its infancy and recognized it may be many years before it became profitable – requiring enormous investments. Thus, a balance was needed to both ensure future rights for the government, while encouraging industry investment and activities. As such, a flexible approach was followed, where the licenses granted established a right for the government to interfere and regulate certain aspects of the activities in the future.[32] The decree also put in place a system with significant tax exemptions and a system where public benefits to the Norwegian state would be paid in royalties (which involves the state taking a percentage in wealth produced, rather than profits as with taxes). The companies had expected the royalties to be set at 12.5%, but instead the government went for 10% – which was viewed favorably by the industry.[33]
Today, some argue that the state should have been stricter – and that the companies received too lenient conditions. The critics' main advice for those considering similar system is to limit the size of the first concession round (they argued that compared to other countries Norway issued too many blocks in the first round) and prioritize implementing a clear but flexible legal framework which can adapt with the evolution of the activities.[34]
Lesson learned: As such, the lesson is that it is better to start with a simple governance regime, which can be built on over time, than to spend too much time on something very detailed which might be politically difficult to adopt, too stringent, or too late to facilitate for good governance during an infancy-period. Mechanisms to ensure a better understanding of the resources, such as a requirement to share geological data, can also be useful in a space resource context.

4.2. After Finding Petroleum Resources

In December 1969, after most companies had given up their exploration activities without viable results, the American company Phillips made an announcement – they had discovered a gigantic oil and gas reserved at the Ekofisk-area.

31 Mork, K. A (2020) "*Oljeeventyret som kom og gikk"* p. 92.
32 Royal Decree 9th April 1963, Chapter 5, Section 37; Norsk Petroleumhistorie (2023) "*Konsensjonssystemet*", *https://www.norskpetroleum.no/rammeverk/rammeverkkonsesjonssystemet-petroleumsloven/.*
33 Ryggevik (2010) "*The Norwegian Oil Experience: A toolbox for managing resources*" s. 18.
34 Ryggevik (2010) "*The Norwegian Oil Experience: A toolbox for managing resources*" s. 20.

Even after Ekofisk, many doubted, and even fewer foresaw the extent to which this discovery would shape Norway for the foreseeable future. However, the discovery did change the political interest and public debate concerning the need for a more mature governance framework.
As noted by Helge Ryggevik, the years leading up to the Ekofisk-discovery had produced a system where:

> Several years of complicated negotiations, shielded from the critical eyes of outsiders, had created a close relationship between the little oil bureaucracy and the foreign oil companies. No corruption has been discovered in this relationship. But then, as now, the oil industry has been good at lobbying.[35]

After the Ekofisk-discovery, the Industrial Committee at the Norwegian Parliament in 1971 formulated what has become known as 'The Ten Oil Commandments'.[36] The ten oil commandments are a declaration of principles underpinning Norwegian oil policy, submitted by the Standing Committee on Industry in a Storting (*i.e.*, Norwegian Parliament) White Paper dated 14 June 1971. These principles represented a clarification of what the Government understood as necessary priorities to make sure that the oil activities would 'benefit the entire nation', and are as following:

1. National supervision and control of all activity on the Norwegian continental shelf must be ensured.
2. Petroleum discoveries must be exploited in a manner designed to ensure maximum independence for Norway in terms of reliance on others for supply of crude oil.
3. New business activity must be developed, based on petroleum.
4. The development of an oil industry must take place with necessary consideration for existing commercial activity, as well as protection of nature and the environment.
5. Flaring of exploitable gas on the Norwegian continental shelf must only be allowed in limited test periods,
6. Petroleum from the Norwegian continental shelf must, as a main rule, be landed in Norway, with the exception of special cases in which socio-political considerations warrant a different solution.
7. The State involves itself at all reasonable levels, contributes to coordinating Norwegian interests within the Norwegian petroleum industry, and to developing an integrated Norwegian oil community with both national and international objectives.

35 Ryggevik (2010) "*The Norwegian Oil Experience: A toolbox for managing resouces*" s. 18.

36 De ti oljebud, innst. S. nr. 294 (1970–1971), Stortinget (2021) "*De ti oljebud vedtatt for 50 år siden*", *https://www.norgeshistorie.no/kilder/oljealder-og-overflod/K1905-de-ti-oljebud.html.*

8. A state-owned oil company be established to safeguard the State's commercial interests, and to pursue expedient cooperation with domestic and foreign oil stakeholders.
9. An activity plan must be adopted for the area north of the 62nd parallel which satisfies the unique socio-political factors associated with that part of the country.
10. Norwegian petroleum discoveries could present new tasks to Norway's foreign policy.[37]

The ten oil commandments have largely stood the test of time and carried the petroleum sector through its infancy. It was not until the late 1990s when the governmental income from petroleum activates was becoming substantial, that a new public debate emerged.
Lesson learned: In the beginning, the Norwegian government focused on defining overarching policy objectives and principles, based on what would benefit the Norwegian society at large – and what it would take to reach these objectives. From these principles a detailed regulations and governance system evolved over time. The same could be possible for space resources.

5. Lesson 4: Resource exploitation must be managed vis-a-vis other activities.

As the Norwegian government decided to develop a licensing system, the Norwegian continental shelf was zoned, where some areas were opened for exploration and exploitation of petroleum. Then the areas for petroleum activities were divided into separate blocks.
However, as was already noted, the royal decree of 1965 set forth that the oil industry should not cause inconvenience to other activities or hinder acceptable technical safety.[38] This was also reflected in the Oil Commandments, which for example explicitly states: 'That an activity plan must be adopted for the area north of the 62nd parallel which satisfies the unique socio-political factors associated with that part of the country'. The harsh climate north of the 62nd parallel, e.g., darkness, temperatures, and weather, makes it particularly challenging to conduct operations and clean up after accidents.

37 Storting White Paper 28 (2010-2011) "*Unofficial Translation of Chapter 1: An industry of the future –" Norway's Petroleum Activities*", *https://www.regjeringen.no/globalassets/upload/oed/petroleumsmeldingen_2011/oversettelse/chapter1_white_paper_28-2010-2011.pdf*.
38 Industrial Heritage (2020) "The first licencing terms specified", *https://frigg.industriminne.no/en/2019/12/12/first-licensing-terms-specified/*.

In the 1960s and 1970s the activities were limited to areas south of 62 degrees north but has gradually expanded north over the years.[39] To this day it is heavily debated how far north there should be petroleum activates, with significant protest from some parts of society. However, Norway and large parts of Europe are dependent on these resources, and thus – the activities have continued and expanded.

Lessons learned: The main lessons learned from Norwegian petroleum governance is that once resource exploitation was started, it developed and expanded as the nation's and Allied countries dependency on the activities grew. However, resource exploitation needs to be governed also vis-a-vis other activities, including other industries and environmental concerns. Thus, a comprehensive discussion on how to balance interest is needed from the very start – before anyone potentially receive significant benefits from the activities.

There are also parallels to the debate about technological readiness, and the benefit of waiting to exploit certain areas until technology improve (to better exploit the resources in the area and improve safety and the ability to handle accidents). This could be particularly relevant for areas which are also interesting for other types of activities.

For the lunar surface several different activities are planned, and so far, safety zones have been a prominent part of the discourse for how to balance different interests and activities and mitigate conflicts. However, it seems prudent to ask if safety zones around the activities themselves will be enough or if a more comprehensive zoning of the lunar surface could be useful. For example, by only opening certain areas to resource activities, other areas can be preserved for other activities, and specialized rules could be developed for the various areas. For example:

- *Areas for landing new technology and landers,* where higher risks for accidents or hard landings could be accepted. This would presumably also be the most relevant area for recognizing heritage sites.
- *Areas dedicated and reserved for scientific exploration* to alleviate some of the concern the scientific community has vis-a-vis extensive commercial activity getting in the way of science.
- *Areas opened for exploratory activities and exploitation of space resources.*
- *Areas for human activities,* where one might want to consider more stringent safety rules, and larger safety zones.
- *Areas preserved, with no activities*, which may be of interest for the future, if relevant to analyze the pristine lunar surface.

39 Norsk Petroleumhistorie (2023) "Rammeverket", *https://www.norskpetroleum.no/rammeverk/rammevilkarpetroleumshistorie/.*

For areas dedicated to (or at least opened to) exploration and exploitation of space resources, this could allow for creating a system with blocks which can be allocated through concession rounds. In addition, lessons from escheat in the Norwegian Petroleum Governance could be useful to encourage more actors to participate and ensure opportunity for those who are yet to develop relevant capabilities. In the Norwegian petroleum sector companies had to give up parts of a block they had been awarded after certain time limits.[40] For example, extraction permits are granted for six years, where the company had to give up a quarter of their allocated block after three years. In addition, if they wanted to retain the block after the initial six years, they had to give up another quarter of the block halfway through the second period.[41] This has the benefit of exploration being conducted but opportunity being shared. This is something also familiar from the International Seabed regime, where those applying for a slot to mine the deep seabed must identify two slots of sufficient size and economic value. After providing information about both these slots, the Legal and Technical Committee of the International Seabed Authority, will recommend one to be used by the applicant and one to be reserved and set aside for actors from developing countries to apply for its use in the future.[42] The allocation of rights to use frequencies and certain orbital slots, is of course something already familiar to space experts from the ITU-regime – but there are many ways to do this in practice, with slightly different results as seen in different regimes.

6. Conclusion

To summarize, the paper highlights four lessons from the Norwegian Petroleum Governance system which could be relevant when discussing space resource governance:

1. It is possible to combine policies of benefit-sharing with a system that also incentives commercial activities and a market economy.
2. Finding petroleum resources was lucky, but the real treasure for the average Norwegian citizen was having innovative policymakers who put in place a governance system encouraging benefit sharing, industrial development, and responsible macroeconomic policies.

40 Ryggevik (2010) "*The Norwegian Oil Experience: A toolbox for managing resources*" s. 17.

41 Ryggevik (2010) "*The Norwegian Oil Experience: A toolbox for managing resources*" s. 17.

42 Koch. J. S (2018) "*Institutional Framework for the Province of all Mankind: Lessons from the International Seabed Authority for the Governance of Commercial Space Mining*", p. 11+12.

3. There are benefits to an evolutionary approach to governance, where one at first focuses on establishing consensus on overarching principles to set a clear direction, and then determine what it takes to reach those objectives. Then, build on this over time as the sector develops.
4. Resource exploitation need to be governed also vis-a-vis other activities, and a more holistic discussion among policymakers about how to govern an aera may be useful to better understand how one can balance interests.

In a short paper it is difficult to highlight the complexities of a debate going on 60 plus years. As such, it may have been portrayed as quite an easy feat to establish the Norwegian Petroleum Governance system. While today there is broad political consensus that some key features have been a success, it has not necessarily been an easy journey and many questions are still hotly debated, in particular related to climate and environmental issues.
However, the crucial part of what has been a success – achieving a system which largely does benefit a whole society, lies in the bipartisan political consensus, and insistence, that the petroleum activities must benefit Norway at large, including the current and future generations. Which builds a foundation for every other discussion on how to develop the governance of the sector.