



Celestial Land Use Benefit (CLUB) Plan

<http://clubplan.space>

- **One small step for (a) law, one giant leap for humankind**
- **The CLUB Plan is devised and proposed to facilitate peaceful, vibrant and responsible space commerce, such that the core principles of existing space law are reinforced and enhanced. The acceptance and implementation of this plan will harmonize all existing space laws/agreements and deliver enormous benefit to the space economy and international development.**
- **This is the CLUB Plan in draft form:**

Introduction:

Today, humanity is enduring/facing enormous challenges: climate change, viral pandemic, energy crisis, poverty, economic instability, continental warfare and huge geo-political threats. Surging political/cultural nationalism is impeding necessary collaborative action. UN effectiveness is progressively sub-optimal. Space commerce, if unleashed, brings great opportunity, but also danger. I propose a plan which immediately enhances opportunity (and benefit), minimizes danger, and reinvigorates space law and the responsible UN committee (COPUOS).

For Planet Mars, the CLUB Plan is good to go. It stands ready, as required, for the Moon.

Our current predicament serves to remind that preventing disaster beats managing it.

Creating and building on opportunity ... delivering deep equitable benefit whilst preventing the rise of harm ... the harmonization and development of benevolent space law... such is my simple proposal. "The Martians" Project and CLUB Plan together are a purpose-driven ethical enterprise. Please scrutinize them.

Executive Summary:

This decade brings three enormous challenges alongside our human journey into space. The CLUB Plan has been crafted to provide an ethical trillion-dollar (\$3T) solution to them. Those challenges are:

1. The current inevitability of imminent “strike weaponization” in space.
2. Unregulated space exploitation: Artemis 1 heralds a new era of space exploitation (mining etc.). This brings opportunity for huge benefit to humanity and Planet Earth... but the legal foundations are not universally agreed and the implementation, without regulation, is unlikely to be observant of one of the most important treaty obligations (Article I Outer Space Treaty 1967). This will, within the decade, result in increased international friction/dispute.
3. Space debris (especially in the orbital space around Earth): this is a huge and still growing problem. It will be difficult to generate direct commercial benefit in the management/removal of this debris.

The CLUB Plan will (if applied to both Mars and the Moon) generate an up-front \$2T boost to the space economy and an international development fund (>\$3T within 15y). It will continue to support these interests year upon year. It will harmonize all existing laws/agreements applicable to space. It reinforces and develops existing space law such that space weaponization is prevented and debris is managed.

The CLUB Plan requires only a small shift in law... celestial land becomes repositioned as “owned by” rather than “belonging to” humanity. Such requires only modest adjustment in understanding rather than any need to edit written law. The CLUB Plan requires a unique international Declaration of Trust which results in the award of legal title over all celestial bodies in our solar system to All Humankind, with a UN Committee (a committee such as COPUOS, NOT the UN organisation itself) acting as trustee. Beneficial title (to celestial land) is made available, at a very fair price, to an equitable representation of all humanity and nations. Such an ownership split-in-rights is well represented in private common law but will need acceptance and manipulation to be applied here. The Declaration of Trust will mandate the formation of a responsible pro-business, space-user governance group to act as governing body. Representation on this largely autonomous group will only be open to those involved space faring nations who ratify a binding agreement which reinforces and enhances the Outer Space Treaty (OST) strength against weaponization and debris management (the Celestial Peace and Prosperity Protocol – <http://cPPP.space>).

The initial \$2T “boost” comes from the primary sales of celestial land plots (beneficial ownership); ongoing revenue is generated from a levy on received land-rent payments and secondary sales/transfers (percentage royalty payments on “NFT-tokenized” deeds of assignments). In all cases, the source of revenue is the beneficial landowners. This revenue is allocated equitably towards space industry reinvestment, debris management and international development (benefit sharing) as per the obligations imposed by Article I OST. Space industry is spared the burden (only paying a modest ground rent, as set by the governing user group) and may thus retain all profits - they are encouraged to donate to the international fund (as per the “building blocks” plan from the Hague ISRGWG).

The unique construct of the CLUB Plan will bring early realization of enormous benefit. This prospect, it is hoped, will ignite the necessary appetite within state governments, especially those of space faring nations. Yet, I anticipate the need for an additional jolt to

trigger the wide acceptance and initiation of the plan. The primer for this jolt is “The Martians Project” ... essentially this is the creation of an independently validated, communal factual possession of Planet Mars. The possession is based on the persistent targeting of Mars with high-powered lasers since 2010 (Note: within Article 11 of the Moon Agreement, the remote use of lasers is not listed as one of the barred modalities for creation of ownership rights to a celestial body). This rudimentary de-facto possession is only incomplete/inchoate until such time that an appropriate space-industry partnership results in the shared possession being perfected through human arrival on the surface of Mars. Such a robust claim to Mars on behalf of All Humankind will require just a small shift in legal understanding to realize these ethical goals.

It is my intent to introduce The Martians Project, heralding the CLUB Plan, to national government delegations and space industry as a “benevolent Trojan Horse” ... and seeing the potential of the project to become “sticky,” the target audience should see benefit in early acceptance and implementation of the Martians Project and the more expansive CLUB Plan (which can extend to the Moon). The CLUB Plan, if applied to the Moon, will for that application alone, generate more than \$2T in revenue within three years.

Background:

Challenge 1: Imminent “Strike Weaponization” in space

We are to sleepwalk with ignorance across this Rubicon. For years, nations have employed satellites to monitor and manage terrestrial conflict. With resurgent competition/capabilities in the development of electronic warfare (EW), there has been parallel development of anti-satellite weaponry. To date, this has predominantly involved measures/weapons which originate from within the Earth’s atmosphere. But the introduction and development of space-based strike weapons (e.g., satellite-killing kinetic weapons) is a lethal path of no return. The Outer Space Treaty (OST) bars all weaponization on celestial bodies (Moon, Mars etc), which are declared to be for peaceful uses only. It only bars nuclear/WMDs from the orbital space around Earth. This may appear to permit the legitimate deployment of “peaceful” conventional strike weapons. Perhaps, but this invites serious risk to the relevance of the treaty. Such deployment sits poorly with Article III, which states that the orbital space around Earth should be used “in the interest of maintaining international peace and security and promoting international co-operation and understanding” ... it would also disconnect with Article IV’s demand that space faring signatories “shall regard astronauts as envoys of mankind in outer space and shall render to them all possible assistance...” Indeed, the deployment of space-based strike weapons will discredit and weaken the OST. Yet still, we stumble on in this direction, with no serious national/international discussion on the matter. The 2019 advertising campaign for the UK’s Royal Air Force (in my opinion, the best, most professional air force worldwide), we see a serviceperson, armed with SA80 assault rifle, ascending skywards as the commentary states, “Try protecting space.” The decision to bring assault/strike weapons into space must first be seriously considered ... and only introduced after a proper collaborative (NATO/UN?) decision. I am not a pacifist.

I have been very prepared to use an assault rifle during war. War may be necessary. But humans do tend to stick to agreed rules. So, let's agree a stronger rule on space-based weapons. To pollute outer space with the vulgar traffic of weapons from Earth is to give up on humanity. We should not do that.

At this last precipitous moment, we should build on OST with a binding agreement to ban strike weapons from space. The CLUB Plan introduces a delicious, irresistible commercial "carrot" which should bring space faring nations to agree to this. In order to enjoy the enormous benefits and to steer governance within the CLUB Plan, a space faring nation must ratify a binding "top-up" agreement to reinforce/enhance OST strength against weaponization. A hook for this agreement could be the original written English text of the Outer Space Treaty, as published by the UN on the approval/adoption of the treaty by the UN General Assembly, 19th December 1966. To this date, this is probably the most widely read English version of the treaty (insert "Outer Space Treaty" into a search engine... it will deliver the UNOOSA webpage containing this text of the treaty as part of Resolution 222 (XXI). Potentially millions of people have encountered the OST for the first time through this text ... yet it contains a delightful "typo error" ... it omits the word "such" (other translations do contain the wording "such weapons" – in reference to nuclear weapons and other WMDs). The result is that the written English text states: ***"States Parties to the Treaty undertake not to ... station weapons in outer space in any other manner."*** Whilst it is, no doubt, a simple error, it has informed millions of English-reading people that UNGA has adopted a treaty which bars all weapons from space, including the orbital space around Earth. Perhaps some of the original signatories also believed this. This matter cannot be trivialised or ignored. With the positive calorific value generated by The CLUB Plan, there is opportunity to create a new "top-up agreement" which confirms a total ban on space weapons.... or at least strike weapons. Through the harmonizing influence of the CLUB Plan, this binding agreement would ideally affirm the common purpose of OST, Moon Agreement and CLUB Plan ... to be named as the Celestial Peace and Prosperity Protocol (<http://CPPP.space>)

CHALLENGE 2: UNREGULATED SPACE EXPLOITATION:

The cornerstone of the laws applicable to space is the Outer Space treaty 1967 (OST). It is a beautiful child of its time. It was created, in large part, to prevent a nuclear arms race in space and lunar land grabbing by the two competing spacefaring powers. That it has successfully enjoyed 55 years of respect, is indeed marvellous – much credit is due to the skill of the crafters. But the road as laid down has, over time and distance, become worn, cracked, and poorly signposted ... it needs reinforcement and development.

The modern plans for space exploitation (celestial mining etc.) and military space forces do not sit perfectly within OST 1967. There is general understanding and intent within most state governments that space commerce must be facilitated. WRT space resource utilization, there is progressive worldwide accommodation of the "sense" of Congress in the U.S. Commercial Space Launch Competitiveness Act: *"... the United States does not, by enactment of this Act, assert sovereignty or sovereign or exclusive rights or jurisdiction over, or ownership of, any celestial body."* But agreement is certainly not universal. There

remains significant dissent from this view. With plenty of other geo-political tensions (including active warfare), such opportunity for friction/dispute is concerning.

The early stages of space exploitation (@ moon and asteroids) will be high risk for space industry and its investors. OST adds a significant burden... the uncertainty of an ill-defined, yet mandatory obligation: Article I. This article requires that the use of celestial bodies must be for the benefit and in the interests of all countries ... benefit sharing?... but what and how much to share?

There is no indication that early space commerce will deliver on Article I. If this article is effectively ignored, most nations will understand and tolerate this during the early years, but others will vehemently complain. If there is sufficient opposition, the commercially active space faring nation may choose to depart from OST with one year's notice. Such an event would be hugely destabilizing... made worse if there is concomitant weaponization in space. In conclusion, there is a need for legal clarity and responsible, light-touch governance.

For acceptance and implementation, the CLUB Plan will require a modest shift in space law interpretation (sufficient to influence customary international law) – towards a very limited acceptance of property rights (celestial land becomes repositioned as “owned by” rather than “belonging to” humanity). Such will not require any textual editing of treaties. But first, in order to generate real appetite, there needs to be widespread awareness of this plan... and there may be need of “The Martians Project” to provide a jolt/trigger.

The cornerstone to the CLUB Plan is a necessary separation between legal and beneficial ownership of celestial land as property, using a declaration of trust. I recognise the need for a unique two-step legal adjustment process, involving private and public international (space) law, but most important is the need to understand how such an arrangement would then sit within applicable law.

The terms “Province of All Mankind” (WRT use of celestial land/body) and Common Heritage of Mankind” (WRT celestial land/body itself) are stated in space law; the former is found within the Outer Space Treaty 1967 and both terms appear in the Moon Agreement 1979. The intended meaning of Common Heritage of Mankind (CHOM) was expressed within the provisions of Article 11 (Moon Agreement, relating to non-appropriation principle and a responsible regime of governance).

The CHOM term is also found in United Nations Convention on the Law of the Sea (UNCLOS), whereby it is stated, *“All rights in the resources of the Area are vested in mankind as a whole, on whose behalf the Authority shall act.”*

It is my sense that CHOM (or Province of All Mankind) is not affirmed to bar humankind from collective group ownership. Indeed, there is more to persuade to the contrary. “Common heritage” and “common property” have been interchangeable phrases within the development of CHOM. A normal understanding might/should be that something “belongs” to mankind (humankind). A reasonable interpretation of both CHOM and Res Communis (Humanitates) is that something is property of all humankind.

What is also clear is that 'Heritage' here means something belongs to the collective group, humankind ... not to humans. Such is the difference between individual rights (human rights) and group-collective rights (rights of humanity). Such a collective right is stated above (UNCLOS).

I assert that it requires only a subtle shift in legal interpretation (with no hard disruption to core space law or indeed all "hard" international law) to arrive at the elegant possibility for humankind as the legal owner of celestial bodies in the (near) solar system. There is then also, via a declaration of trust, the feasibility to award beneficial interest in celestial bodies to humans – ideally embodying an equitable representation of all humankind.

I aim to show here that such an arrangement (already well known in private law) serves more than just an opportunistic route through the fog of current space law(s); it elegantly brings all relevant treaties, agreements and accords together and delivers deep, equitable profitability for responsible space commerce. For this, both elements of the arrangement are necessary.

The first element is the award of legal title over celestial land to humankind. This effectively ensures comfort for the drafters of US Space Act and Artemis Accords (and most/all future national space laws). With humankind holding legal title, the "*sense of Congress*" that was expressed under Title IV Sec 403 (U.S. Commercial Space Launch Competitiveness Act ... or "US Space Act") can now be more widely accepted. US mining corporations will indeed be legally able to mine, keep, use or sell those celestial resources.

Via the CLUB Plan, the Outer Space Treaty 1967, US Space Act and the Artemis Accords can now sit comfortably together. More elegant still is the easy alignment with Moon Agreement. This (the first element) is the vital first step. Critical reading of Moon Agreement provides opportunity for harmonization, even within Article 11. The non-appropriation principle is expounded within Article 11. Expanding on OST 1967, it states that celestial land/bodies cannot become property of any "*State, international intergovernmental or non- governmental organization, national organization or non- governmental entity or of any natural person.*"

I understand that humanity is not an organisation. A church is (usually) an organisation, but the congregation is strictly not. The UN and UNOOSA are an organisation (and secretariat), but COPUOS, the committee, is strictly not. As the most representative delegation of all humanity (WRT involvement in space!), I see logic in this committee acting as trustee, holding legal celestial title on behalf of all humankind. It is my "sense" that this arrangement is not a hard infringement upon Article II OST or Article 11 of MA.

So, the CLUB Plan requires a minimal shift in "unwritten" customary law towards tolerance of the international registration of celestial legal title for all humankind ... held in trust by a UN Committee (not the UN itself). COPUOS Legal Sub-Committee would be our proposed trustee.

There is, of course, a second element within this split ownership arrangement. It is vital to the CLUB Plan. Beneficial ownership (perhaps better termed beneficial interest) of celestial land must be awarded (at a fair price) and equitably distributed to motivated human claimants.

Again, this requires some modest evolution within private international law – requiring the international registration of “deed of assignments” for all the successful claimants.

Such an arrangement creates not only the foundations and scaffolding on which a light, pro-business governance plan can be realised, it delivers enormous “seed funding” with more predictable costs for space commerce, plus a guarantee of equitable benefit sharing. The elegance in the plan is that, right from the start, it absolutely delivers on the obligations of Article I OST 1967 (including equitable sharing) whilst also encouraging vibrant, more predictable outcomes for space industry/commerce.

I explain more within the draft of the CLUB Plan (below), but the basis for a successful plan is as follows. The primary sales of celestial land plots (deeds of assignment of beneficial title) are attractively priced. If pitched appropriately, uptake will be vibrant, if not frenetic. My interest is Mars, but a responsible sponsor (I stand ready) for primary sales on the Moon could, I estimate, raise in excess of \$2T in profit – within 3 years. \$1T could support the first phase of lunar exploitation (logistics and infrastructure ... laying the tracks). The remaining \$1T would create international sustainability and development funds (this would include a discrete allocation towards waste/debris management) ... thus seriously addressing the obligations of Article I right from the start.

The early decades will be daunting for space industry. The CLUB Plan further assists these companies in unburdening them of the obligations from Article I OST (the vague demand for sharing of benefit – profits and technology?). Instead, Article I is satisfied via the position and contribution of beneficial owners. The primary land sales will have followed pre-determined “equitable allocations” of plots to nationals of every nation (we address the complexity therein later in this document). Thus, if optimally executed, such a fair distribution of national landowners will represent an international benefit that arose directly from space commerce. More directly, there will be financial benefits. Commercial installations on celestial land will incur a very reasonable and predictable land rent obligation (a modest capitalization rate). The recipient (beneficial) landowners will be mandated to pay a substantial proportion (perhaps 20%) to international sustainability and development funds. Taxation may be required from landowners to their parent nations. The landowners become the effective “engine of generation of benefit.”

There is a further revenue towards the international sustainability and development funds. Using modern blockchain registrations (deeds of allocations issued as NFTs) it is easily feasible to allocate 10-20% “royalties” from every secondary sale of beneficial interests. Given the competitive pricing at primary sale, it is reasonable to anticipate a very buoyant secondary market, especially for Mars. During the first decade post-primary sale we can anticipate in excess of \$60B per annum (royalty payments from these secondary sales alone) to be awarded to the agreed “good causes” (ideally as charities).

All the above could perhaps be realised without the existence of any formal governance body. Such would be suboptimal. There is a need for responsible, light touch, pro-business governance. With a UN committee (such as COPUOS) acting as trustee, there will be strong motivation within the governments and industries of spacefaring nations to avoid UN-lead governance! Thus, as stated earlier, the Declaration of Trust will mandate the formation of a responsible pro-business, space-user governance group to act as governing body. Representation on this largely autonomous group will only be open to those involved space faring nations who ratify a binding agreement which enhances the Outer Space Treaty (OST) strength against weaponization and debris management (the Celestial Peace and Prosperity Protocol – <http://cphp.space>). This responsible and responsive space-user group will also admit landowner representation. The specifics of my governance strategy WRT Mars are detailed further below under “CLUB-Mars.”

CHALLENGE 3: SPACE DEBRIS

Very much like the pressing issue of global warming, all space faring nations recognise that space debris (primarily debris in the orbital space enveloping Earth) is a monstrous problem that continues to build. The problem inflates on realization that there are currently no commercial rewards in trying to manage it. Certainly, there is a need for responsible regulation, but equally necessary is the allocation of serious international funds towards implementation of optimal methods of debris removal/mitigation. Whilst it now appears reasonable to demand an “access to space” levy to fund this, the CLUB Plan makes provision for a substantial up-front and ongoing annual fund towards debris management.

In closing the “Background” preamble, I propose that in addition to providing a tool for harmonization and clarification within space law, the CLUB Plan provides huge benefit towards space industry and international development. It will encourage further strengthening of law against aggressive weaponization and invest in rigorous efforts to prevent/manage/mitigate celestial waste and debris.

Also, WRT The “Building Blocks” as developed/presented by The Hague International Space Resources Governance Working Group ... this provides optimal grounding for governance. The CLUB Plan expects a responsible, adaptive Space User Governance Group to build on those foundations. The existence of such an adaptive governing body reduces the requirement for anticipatory law-making and the hazards that might arise through such “premature regulation.” Furthermore, advancements in subject-matter collaboration are now coming from UN-COPUOS (Working Group on Legal Aspects of Space Resource Activities) ... the CLUB Plan should hugely enhance this splendid work.

Pre-implementation:

The genesis of the CLUB Plan was early 2010. It has enjoyed stepwise progression over the ensuing 12+ years. The progressive steps resulted from a series of interactions I enjoyed with eminent academic space lawyers Dr Philip De Man, Professor Frans Von Der

Dunk and Professor P.J. Blount. In parallel with the development of concept, I recognised a need to plan for implementation...and given my peripheral standing (medical doctor, no longer involved in aerospace operations), the plan itself must encourage implementation.

Thus, I earnestly engaged in an evolving de-facto possession of the land on Planet Mars. To clarify, I initiated and maintained activities on Earth which directly and physically impacted Planet Mars, albeit with minimal/trivial geo-atmospheric effect. The science base/calculations were independently scrutinized (calculations validated) by external expert professors of astrophysics (including Dr Paul Sutter). In order to reasonably assert "early factual possession," I required independent expert legal critique. Hence, I approached Professor Frans Von Der Dunk and Dr Philip De Man, both world-respected experts in space law (but with modestly opposing views on legal positioning WRT space commerce). The summation of their input (plus a brief expert critique from Prof P.J. Blount) was that I could reasonably assert an early (embryonic/rudimentary) and incomplete de-facto possession of all land on Mars. Further, within Lex Lata (current law) it did not matter how complete such a possession might be, it was essentially meaningless... but should space law evolve towards a limited acceptance of celestial land property rights, then any factual possession should become very relevant.

So, with some expert validation for this claim, I was able to successfully encourage others to join me in a pan-multinational (people from all nations) communal possession of the land on Mars. This "recruitment" was initially delivered on a cost-free basis for new co-claimants (members = "The Martians"). Realizing that we needed funds to progress the project, I am now offering modestly priced individual claims (within the communal claim) of possession. The funds raised in this manner are initially intended to develop and propagate 'The Martians' land claim (yet still allocate 60% profits to a fund for associated good causes). There are two routes to be funded... the physical development of the factual possession (via space industry partnerships/MoUs and internal investment in STEM studies / space studies scholarships for successful applicants within our membership) and the canvassing of state governments and space industry executives.

It is my hopeful expectation that state governments of space faring nations will recognise not only the huge opportunities within the CLUB Plan, but also the likely "stickiness" of The Martians Project (especially through space industry partnership(s)). I expect these governments to accept this "benevolent trojan horse" in order to trigger the modest legal repositioning required to implement the CLUB Plan. My hope is that this will be accomplished before any significant weaponization in space.

THE CLUB PLAN:

Below, I first describe the CLUB Plan as applied to Mars (CLUB-Mars is my/our specific area of interest and business strategy).

Following that, I suggest an optimal CLUB Plan for the Moon (massively more profitable than Mars in the short-medium term). A widely accepted responsible sponsor will be needed to initiate and steer this project. Given the advanced position of "The Martians"

WRT de-facto possession of celestial land (based on remote laser applications upon Mars – a methodology not listed as “barred” within Article 11 of the Moon Agreement), I am willing, if internationally agreed, to initiate and implement the CLUB Plan for the Moon (CLUB-Moon) in parallel with the existing Martians Project.

Within the framework of the CLUB Plan, there are several options for implementation. As suggested below, optimal choices will differ for the Moon and Mars. These costed strategies demand international attention ... the potential for positive impact is huge.

The CLUB Plan - applied to Mars (CLUB-Mars):

BENEFITS:

MEMBERS/MARTIANS	SPACE BUSINESS	HUMANITY & EARTH
Early: cheap but real claims	Early (pre-reg): \$100M funding	Early: increase risk awareness
Claims can be sold/transferred	MoU/partner with Mars Register	Stimulate new efforts at UN
Membership: Join the Martians	MoU = 100x Preferential Claims	\$100M: International Dev Fund
Ethical Purpose: Doing Good	MoU = ethical purpose/do good	\$40M: Space Debris Fund
Later: Deeds of Assignment	Later: \$12B funding (lump sum)	Later: Humankind - owner of Mars
Beneficial ownership: large plots	Protected: land held for industry	UN Committee as trustee
Land value > 100x purchase price	\$24B p.a. 1 st decade post-reg	Mars Governance body: MUGG
Can subdivide and sell land rights	\$32B p.a. 2 nd decade post-reg	UN 75% vote to veto/direct MUGG
Huge financial reward from sales	Modest land rent payments	“Peace & Prosperity” law for space
Receive land rent payments	No mandatory profit sharing	\$600B in 20y: Mars Development
Preferential rights to use/build	Confidence in business legality	\$600B in 20y: International Fund
Investment in land for family	Improved investor confidence	\$70B in 20y to Space Debris Fund
Right to name the owned land	Pro-business governance: MUGG	Increase all human prosperity
Up to 10% awarded courtesy title for good works (Lord, Lady, Czar)	Ethical: helping humanity & Earth (resources & new clean energy)	New energy, save Planet Earth and enable human settlement on Mars

- Pre/Post Reg = before/after the international registration of ownership; B = Billion; T = Trillion; p.a. = per annum; examples of courtesy titles = Lord Smith XVI of Mars, Tsar Khan III of Mars

1. The CLUB Plan as applied to Mars (CLUB-Mars) continues to develop during this early implementation phase (2022/2023).
2. The cornerstone of “The Martians” project: Dr Davies continues to frequently target Mars, whenever feasible, with high powered lasers. This action exerts a very small influence upon the geo-atmosphere of Mars, sufficient to represent an early, rudimentary factual possession of all land on Mars.
3. Dr Davies creates availability of 5.4 million claims of Martian Land Possession within the entire pan-multinational communal claim to the land on Mars. These claims are identified against randomized Martian land plots, sited between 75deg N and 75deg S. Dr Davies’ possession extends beyond the margins of the communal claim, to include the polar regions. This sensitive area could later be allocated towards the communal claim or held for industrial development. Multilateral discussions will lead to a decision on this.
4. Nearly 2/3 of all obtainable claims (3.4M) are open to purchase by any person from

any nation. These claims will be released in tranches, in part to ensure equitable access for people of all nations and languages, but also to adaptably optimize the pricing with each tranche. This business model recognises the importance/value of international commerce.

5. Just over 1/3 of all claims are termed “Nationality Claims” - subdivided into national aliquots, using a simplified formula which bases national allocations upon state population, space-faring status, state corruption stats and human freedom index. The low pricing for “Nationality Claims” should remain stable and affordable for 85% of the world population (\$20 is <1 week’s salary). This represents a best effort to allocate claims to the world’s population and nations in the most equitable manner... a fair representation of the “best of humanity.” This equitable allocation formula could prove divisive/difficult for some state governments – I remain flexible, via discussion, for modest alterations.
6. Sales of claim certificates will increase as public awareness of the project builds. This should be facilitated by favourable reports in specialist publications before pick-up in mainstream media. Ethical goals, honest transparency and independent expert validation will deliver separation of The Martians Project from the questionable enterprise in “novelty celestial deeds.” In addition to favourable media coverage, there is a possible need for bundled seed investment (an investment of funds and marketing expertise/influence). The choice of investor will not alter strategy, other than to ensure a buoyant return in investment in the pre-registration business phase.
7. Business development/operating costs are minimal (net profit margin >80%). All sales and the generation/maintenance of records are automated on robust platforms. Mars land claim certificates are issued as downloadable products and are twinned with Certificates of Authenticity (CoA) which are registered on the Bitcoin Blockchain. Ownership and possible transfer of the certificates is done securely but easily, without need for owners/buyers to have knowledge or involvement with the blockchain (nor require a blockchain wallet). The blockchain registration facilitates the utmost fidelity of record keeping.
8. Full implementation of CLUB-Mars will require, as minimum, a group of space faring nations to agree the acceptance of this claim on behalf of All Humankind. When that occurs, it will require some re-understanding within relevant law and two+ procedural steps within private/public international law.
9. The preliminary stage of The Martians Project and CLUB-Mars (pre-registration of ownership) will deliver widespread benefit. 60% of net profits will be allocated to funds for space debris management (10%), space-industry/infrastructure funding (25%) international development (25%). In this pre-registration stage, the latter fund will, in large part, be equitably allocated to the funding of STEM/Space Studies scholarships for successful student applicants from within our membership’s families. This process will not only deliver knowledgeable advocates for “The Martians” Project, but it will also increase the likelihood of a member/co-claimant becoming an astronaut, space-engineer or miner/settler in the early manned missions to Mars. There is further opportunity to strengthen The Martians claim of possession through Memoranda of Understanding (MoU ... leading to partnership for mutual benefit) with space industry – such as space transportation and mining corporations. Such partnership will bring the claim to the surface of Mars and deliver huge potential benefit to the partner (one hundred preference claims, up to 35 Sq Km each, reserved

for the partner. That is up to 3x the size of Los Angeles).

10. With an MoU established (with space industry partner), the public appeal of The Martians will evolve dramatically. Even in the pre-registration phase, with a finite number of available claims (5.4M), each successive tranche of claim certifications (standard and priority claims) will attract a rise in price (at least 100% with each new tranche). A conservative estimate for total primary revenue (sales of 5.4M claims) is \$470M. I believe \$500M is very feasible – this should deliver more than \$400M in net profits. 60% of those net profits will go towards those identified “good causes.” In the post-registration business (after the award of legal title to all humankind and the beneficial title to The Martians), it will be feasible to increase the donation to at least 95% ... but in the current pre-registration stage, Mars Register will allocate up to 30% profits towards marketing, informing, canvassing and lobbying costs. There will also be requirement to allow a profitable exit for any satisfied seed investor (if indeed seed investment was required).
11. After successful registration of ownership (for that, several significant space-faring nations must recognize All Humankind as the legal owner of Mars, with beneficial title going to “The Martians”), there will be opportunity for each co-claimant to assume beneficial ownership of a large plot of Martian land. This opportunity will be realized either via random draw or a first-come first-served provision. All co-claimants/members (=Martians) will be allocated a plot. These huge plots will vary from 9 Sq Km to 35 Sq Km, depending on geographical position. There will be a requirement to pay Mars Register an administrative fee for the “Deed of Assignment” ... currently this is set at \$1000 or 1% of the land valuation (whichever is larger). If Mars Land was to be valued at just \$20 per acre, then 1% for the average plot of 22 Sq Km would be \$1100. We expect a higher valuation.... \$100 per acre. Thus, we anticipate approx. \$30B (billion) in revenue from this registration and award of deeds.
12. Co-claimant/members will each have acquired beneficial ownership of a huge area of Martian Land at minimal cost (<\$5700). If the land is initially valued at \$100 per acre (approx. \$250 per hectare), then the average sized plot (22 Sq Km) would be valued at \$550,000. Having acquired the land for little more than 1% of its valuation, it is these beneficial landowners who become the future “engine” for CLUB-Mars. They represent the source of all the enduring “sharing of benefits.”
13. The issued deeds of assignment will be tokenized as non-fungible tokens (NFTs). These digital tokens will reside on a blockchain (Ethereum or Polygon, probably the latter). Not only does this arrangement confer fidelity of ownership records, it permits a percentage payment back to Mars Register with each secondary sale (20% is proposed as a royalties levy, perhaps reducing towards 10% after 50 years).
14. Even in the early stages of development on Mars (before establishment of significant settlements and industry), the implementation of CLUB-Mars (post-registration roll-out) is projected to deliver a vibrant market in secondary sales, as landowners subdivide and sell all or some of their plots (beneficial title). With land sales starting at \$100 per acre (rising to \$300 by year 10, and \$500 by year 20), it is expected to see half of all owned land becoming subdivided and sold at least once within each of the first two decades post-registration. This should deliver \$600B in “royalties” to Mars Register in the first decade. This \$60B per annum (average) is expected to rise to \$80B in the second decade (so, \$1T in royalties within 15y). I expect the market price to increase at a controlled, moderate pace. I do not expect dramatic hikes in land price –

mainly because a governing body will make commerce-friendly annual recommendations for the market value of regional Martian land, but also because of financial obligations for landowners. So, what are those obligations?

15. As already stated, the landowner must pay a 20% royalty levy back to Mars Register whenever land is sold. There is also a smaller “transfer registration” fee paid directly to Mars Register, payable even when ownership is transferred cost-free between family members. A landowner stands to receive a modest land-rent payment - initially 4% interest/capitalization rate – applied to the “recommended market valuation” of the land (a pro-business governing body will annually update a list of suggested regional land valuations). Over time, as Martian industry becomes more established with widespread infrastructure, the capitalization rate (paid by the installations to the landowners) will be increased towards 8%. But the landowners must always allocate 20% of the received ground-rent payments to an international fund.
16. In the early stages of Martian industry, these levies on land-rent payments will not deliver much for any international fund. With, for instance, ten separate mining installations, each 25 Sq Km in size, the annual revenue in levies may barely exceed \$100,000. But with growth in industry, infrastructure and communities, this will eventually become significant.
17. So, what becomes of the 20% royalty levies for sales of tokenized deeds and the 20% levy in land-rent fees? The land rent levy goes straight into an international development fund. The royalty levy is paid back to Mars Register. In the post-registration stage (full implementation of CLUB-Mars) Mars Register can now realise its greater purpose in donating 95% (perhaps 99%) net profits: split between the international development fund (45%), a Mars development fund (45%) and a space debris and waste management fund (5%).
18. The international development fund is the same fund as proposed in the “Building Blocks” by The Hague International Space Resources Governance Working Group.
19. Space industry (including mining corporations paying ground rent for their installations) will not be required to share profits or sensitive technology. But, in line with the above Working Group’s recommendations, the companies will be encouraged to voluntarily contribute to the fund.
20. Mentioned earlier, there will be a pro-business governance body – for largely autonomous, light touch stewardship and regulation of the commercial activity on Mars. The formation of this body, a space-user group, is mandated in the terms of the original registration. “Trust Mars” directs that legal title to Mars is awarded to All Humankind, to be held in trust by a UN subcommittee (perhaps the Legal Subcommittee of COPUOS). The committee, as opposed to the UN secretariat (UNOOSA), is not an organisation. It is a grouped delegation for all humanity and all willing nations. The terms of “Trust Mars” directs that the beneficial ownership of Martian land (between 75deg N and 75deg S) is awarded to “The Martians,” and to then be subdivided into plots for each co-claimant. The trust terms also mandate the formation of the responsible space-user group for governance purposes. Representation on that important group is only open to those active space faring nations (with commercial presence on Mars) who agree to ratify a binding “top-up” agreement which reinforces the OST and then enhances the law against all strike weapons in space, plus obligations in management of waste/debris. This agreement is to be named the Celestial Peace and Prosperity Protocol (CPPP.space).

21. The proposed space user governance group for Mars (Mars User Governance Group – MUGG – <http://mugg.space>) will be largely autonomous. With a vibrant pro-business approach, this body does require some higher oversight. With a 75% vote, the UN-COPUOS Legal Sub-Committee could veto a MUGG decision... and with a further 75% vote, it could direct MUGG to act.
22. I have stated that the “engine” for benefit generation will be The Martians – those joining members/co-claimants who then become beneficial landowners. The Martians will grow in numbers post-registration – as landowners subdivide their beneficial plots and sell these smaller plots to new members of The Martians. These landowners generate financial benefit for all humanity (within the international fund) via the 20% royalty levy that is applied to each land sale, plus the 20% levy on received land-rent payments (again, this goes to the international fund). There is also an indirect benefit to all humanity and all nations – that being the equitable distribution of Nationality claims/plots. These plots, even when subdivided, remain allocated to a nationality. Thus, every nation, regardless of its spacefaring status, will have an enduring beneficial interest in the land on Mars. It is the right of each nation to decide how they might (or might not) apply taxation to the national citizens who own the beneficial land.
23. Despite their status as an “engine for generating benefit,” there is enormous reward for The Martians. At this early stage, a nationality claim (for an average sized plot of land = 22 Sq Km) is affordably priced (for 85% of world population) at just under \$20. On successful registration of beneficial ownership, the administrative cost to each claimant will be 1% of the land valuation. Typically, this might mean that a claimant becomes a Martian landowner of 22 Sq Km (5500 acres) for a total cost of \$5530 (standard claim plus registration fee). The responsible governing body (MUGG) will make annual recommendations for regional land valuations and will modify/set the capitalization rates for land rent. Ultimately, with that information, the free market will decide on land prices at sales ... but it is clear, with almost 99% financial headroom on their investment, the landowners stand to make huge profits despite the 20% royalty on land sales and the 20% levy on received land-rent. The earliest of landowners will, in most cases, realise the biggest gains.
24. I have described The Martians Project and the CLUB Plan (and hence also, Mars Register, the business) as a “purpose-driven ethical enterprise.” Through buoyant but responsible space commerce, we aim to “serve and save” humanity and Planet Earth. With a current need to inform, promote and lobby, armed with the CLUB Plan, the Mars Register business may need a seed investment bundle – an equity investor who brings financial benefit and wide public influence or marketing skill). I still believe we will have headroom to donate 60% of pre-registration profits to the “good causes” (international Development Fund, Martian Commercial Development Fund and a Space Waste/Debris Management Fund). With Mars Register Ltd being based in London UK, these international funds (already proposed at the UN) will, for tax-relief purposes, need to be recognised as an overseas charity by HMRC (UK Gov) or have registered UK charity status. This remains to be agreed, created and organised, but should be readily possible. For the post-registration business, I anticipate the ability to elevate donations to at least 95% (maybe 99%) of net profits.

The CLUB Plan - applied to the Moon (CLUB-Moon):

It is advisable to read CLUB-Mars first, since much of CLUB-Moon uses the same format.

“The Martians” project should act as an effective vehicle (or benevolent trojan horse) for the acceptance and implementation of CLUB-Mars. It could/should also trigger the initiation of CLUB-Moon. If agreed internationally, I am content to rapidly create and implement CLUB-Moon (within 3 months, using the same platform and infrastructure as CLUB-Mars). Club-Moon should be able to donate >95% net profits right from day 1.

The opportunity and market for the Moon is mature in comparison to Mars. If “The Martians” Project succeeds in gaining acceptance by several significant space faring nations, then CLUB Moon should be implemented in parallel with CLUB-Mars.

With the necessary legal interpretive and procedural changes underway, CLUB-Moon will require the issuance of valid lunar deeds (no need to issue provisional claims if registration of ownership has been achieved). With All Humankind identified as the legal owner of the Moon, the issued deeds will be Deeds of Assignment (awarding beneficial ownership of individual plots to successful buyers).

Whilst it is possible to issue 32 million x 1 Sq Km plots for an average price of \$40,000 (targeting mainly the world’s wealthiest 1-2%), this would not be my preferred model. The suggested model for the moon is to issue a total of 3.2 billion x one-hectare plots: 1.6 billion on each side of the moon (Earth facing and non-Earth facing). With similarity to CLUB-Mars, nearly 1/3 of plots are allocated to nationalities (using the same formula for equitability). These one billion Nationality Plots are entirely located on the non-Earth-facing side of the Moon. Priced (\$20) such that 85% of the world’s population could afford them (within one week’s wage/income), these deeds will raise \$20B. The remaining 600 million “standard” plots on the far side (non-Earth-facing) will sell for \$625 per hectare plot (that’s \$250 per acre). This will raise \$325B

The near side (Earth facing) will comprise 1.5 billion standard plots priced at \$1000 per hectare (\$400 per acre) and 100 million Privilege plots (well positioned) for \$1500 per hectare (\$600 per acre). These deeds will raise \$1.65T.

In total, the primary sales of all plots (note: no plots on the poles) will raise **\$2.045T in revenue!** This is much more spectacular than the primary sales plan for Mars. The operating costs will be low. I have suggested that the registry business could donate 95% of net profits to the familiar worthy causes (International development fund, Lunar development fund, and space debris/waste management fund). I suggest that 99% is realistic... we should aim for that. Using the more conservative estimates, the following “lump sums” will be allocated: \$800 B to international development and another \$800 B to commercial lunar development. \$200 B will go to the waste/debris management fund.

So, compared to CLUB-Mars, the CLUB-Moon implementation delivers an enormous “front-loading” of benefits (within 3 years of start-up!). With a similar land-rent arrangement as CLUB-Mars (starting at 4 or 5% capitalization rate), I expect multiple lunar installations to be paying approx. \$50 per hectare per annum. With the same 20% levy, this means that \$10 per annum per rented hectare plot will be donated to the agreed causes.

CLUB-Mars generates vibrant secondary sales for the early decades (with \$1 Trillion in royalties coming within 15 years to fund those causes). In the same 15-year period, I project just \$250 Billion in royalties from secondary lunar land sales). With CLUB-Mars and CLUB-Moon operating in parallel, the funds donated (from >95% net profits) would exceed **\$3 Trillion** within 15 years (15y post-registration). CLUB-Mars royalty revenues increase further into the third decade, whilst CLUB-Moon sales start to decline somewhat. Obviously, if resources for new clean energy are sorely needed (if nuclear fusion is harnessed and Helium-3 is sought), then lunar land sales will remain vibrant, long into the future.

Dr Philip Davies

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Mars Register / Mars Register Ltd

<https://themartians.org>

<http://marsregister.org>

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