

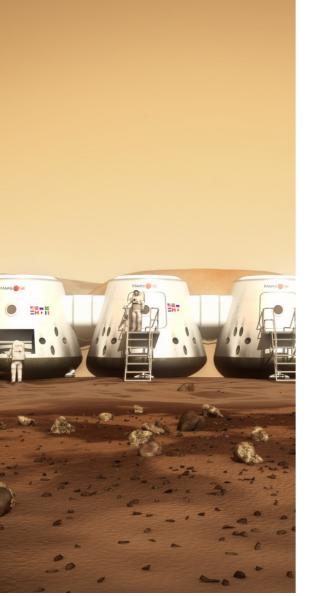
FUNDING HUMANKIND'S MISSION TO MARS

Man the weeks



# **EXECUTIVE SUMMARY**

- The Mars One Foundation is planning to land a first crew on Mars in 2032, an event that Mars One believes will define the 21st century, unite the world, and generate the most valuable media content of all time
- Mars One Ventures AG holds the exclusive monetization rights to the Mars mission
- It is a mission of permanent settlement; crews will stay on Mars. This makes the mission more feasible, more affordable, and less risky than a return mission
- Every two years, additional crews will follow, ensuring a growing outpost and a sustainable business
- Mars One is currently raising funds to take the next steps: contract major aerospace companies to work on all components of the mission, to expand the Mars One team, take the selection process to the next round and to take other important steps towards Mars. All these activities will drive more visitors to the website
- Visitors to the Mars One website result in predictable revenues based on historical performance. Mars One Ventures projects to be profitable by Q1 2019. The Foundation projections illustrate that the donations and the license fee can fund the mission throughout the current Mars One mission timeline
- Mars One Venture's listing gives the fan base the opportunity to buy shares, which will create a group of loyal shareholders and will enhance their active support for the mission



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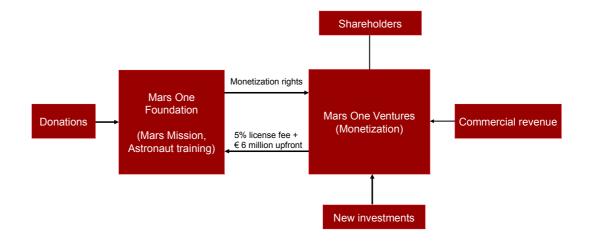
# COMPANY INTRODUCTION

MARS



# MARS ONE FOUNDATION & MARS ONE VENTURES

- The Mars One Foundation organizes the mission and trains the crews that will one day go to Mars. The Foundation is not an aerospace company: hardware for the mission will be built by third party, established aerospace companies. The foundation gets income from donations and receives a license fee from Mars One Ventures AG
- Mars One Ventures holds the exclusive monetization rights around the mission. This includes the media rights. The broadcasting rights and sponsorship and partnership rights around the Olympic Games in Londen resulted in US\$ 4.5b of revenue for the International Olympic Committee. Mars One Ventures revenue will also come from merchandise, games, apps, events, technology related and other intellectual property, business partnerships, and many more sources
- Since the monetization rights to the Mars One mission are Mars One Ventures' only asset, the mission will be introduced before the business case



# MISSION & STATUS

MARS

0

MARS

and the

BRYAN VERSTEEG Mars one



# HUMANS ON MARS IN 2032

Mars One's vision is to unite planet Earth by establishing a human permanence on Mars in 2032, to inspire mankind by pushing the frontier, and to take humankind on a journey that will change the world forever.

# THE NEXT GIANT LEAP FOR MANKIND

- The biggest (media) event in the history of humanity
- Permanent settlement on Mars
- Possible using existing technology, because there are no return missions.
- First robotic mission in 2022
- More preparatory missions in 2024, 2026, 2029
- Human departure in 2031
- Human landing on Mars in 2032
- Additional crews every 2 years
- The birth of a new human civilization outside of planet Earth





# TO MARS FOR A BETTER EARTH

- A human mission to Mars will unite humanity and will inspire, mobilize, and engage the creative energies of people around the world
- Technological spin-offs will improve life on Earth, especially in recycling, solar power, and power/water efficient food production
- Mars, which has almost no water and atmosphere, is the second-best place for humans to live in our solar system. Gaining that perspective through our mission will change humankind's mindset about a sustainable future: we must respect and protect our Earth
- A human mission to Mars will inspire children to want to become engineers, scientists, and astronauts. There are unlimited possibilities for educational programs around the Mars mission
- Mars One and its training program can be used to bring traditional rivals together
- Mars can be humankind's 'life insurance' in case something terrible happens on Earth
- Human beings did not stay in their caves. Dreaming about space and Mars brings out the best in us





# MARS ONE FOUNDATION HISTORY

- Established in March 2011
- Drafted a technical road map and held meetings with established aerospace suppliers in 2011. Used suppliers feedback to ensure Mars One leverages only existing technologies. A lot of engineering and testing is required, but no new inventions are needed to implement this mission
- Announced Mars One to the world in May 2012 with more than half a million website visits in the first week\*
- 2013: Continued to build credibility with a better advisory board, more ambassadors, and contracts with aerospace companies Paragon and Lockheed Martin
- 2013: 200,000+ registrations for the Mars settler vacancy
- 2014: First results from Lockheed Martin presented (First robotic lander)
- 2015: Results from Paragon ECLSS (Surface life support) study presented, and Mars Settler applications narrowed down to 100 round 3 candidates
- 2016: Results from Paragon SES (Surface exploration suit) study presented





# MARS ONE IS ALREADY UNDERWAY

- Mars One has had exposure in the New York Times, CNN, BBC, the Guardian, CBS, ABC, NBC, FOX, and on many other news channels
- 200,000 people registered to be on the first team to go to Mars the most popular job vacancy of all time
- More than 17,000,000 unique visitors have visited the Mars One Website since May 2012
- Established aerospace firms, such as Lockheed Martin, have performed first contracts for the hardware. Letters of interest obtained from many aerospace firms
- The Mars One advisory board includes an astronaut, a Nobel Prize Laureate and NASA's former Chief Technologist
- More than 30,000\* people have already contributed to Mars One through donations,
  - merchandises and application fees
- Mars One has attracted public attention at major events around the world. CEO and co-founder Bas Lansdorp has been invited as a keynote speaker at events such as world renowned festival South by Southwest SXSW (USA), The NAB Show (USA), the Asian Leadership Conference, and The International Mars Society Convention (USA)
- A €6 million investment has been signed with World Stock & Bond Trade Limited



# MISSION PLAN & FEASIBILITY



# FEASIBILITY OF MARS ONE'S PLAN

- Mars One's mission is possible because it is a mission of permanent settlement. Excluding a return mission enables the use of existing Earth launchers and Mars landing systems, and Mars One expects it will reduce cost by 90%
- NASA has envisaged Mars missions since 1969. In 2017, it is still 20 years away, mostly because the return trip is so complex, expensive, and high risk
- Launching rockets is difficult: 133 launches failed between 1990 and 2017 including 5 in 2015 (5.8%), 3 in 2016 (3.5%), and 4 in 2017 (7.5%). On Earth, hundreds of engineers check the rocket just before departure. How can we expect to safely launch a rocket with humans on board from a different planet?
- Permanent settlement is less complex than a return mission, but there is still a lot of design, engineering, testing, and iterations required before the actual hardware is ready
- Mars One is not against future return missions: there is no reason why humans can't fly from Mars to Earth once there is a community on Mars that can support a launch

# "THE FIRST HUMAN BEINGS TO LAND ON MARS SHOULD NOT COME BACK TO EARTH"

BUZZ ALDRIN, SECOND MAN ON THE MOON





# FEASIBILITY OF MARS ONE'S PLAN

- Leaving Earth: Permanent settlement removes the largest component of the return mission: the Mars Ascent Vehicle. Current rockets are large enough for the permanent settlement mission. A very heavy launch vehicle like the Saturn V Moon rocket (which was used for the Moon missions but no longer exists) is not needed
- Trip to Mars: The trip to Mars is seven months: less than the one year that astronauts can stay in the International Space Station. From a technology point of view, there is almost no difference between orbiting the Earth for seven months or flying to Mars. The most significant difference is radiation: astronauts will receive about 400 millisievert of radiation on the way to Mars. This is well below allowed doses for ESA and NASA astronauts. On Mars, the settlers will be protected against radiation by a layer of sand on top of the living area. Permanent settlement actually halves the radiation exposure compared to a return trip
- Landing on Mars: Landing is one of the most important technical challenges of Mars One's mission. NASA's largest Mars mission to date entered the Martian atmosphere with about 3,500 kg of hardware. Mars One's modular mission design will require units of about 11,000 kg to enter the atmosphere. This is a ratio that was done before: the same ratio was used to scale from the MER rovers to Curiosity
- Living on Mars: Life support on Mars is comparable to life support on the ISS, but slightly less complex. There are local Martian resources to replace losses (water, oxygen, CO2, nitrogen) and Mars has gravity. Regular re-supply missions will be required for many items (technology, medicine). Production equipment will be sent to make the crews less dependent on their re-supply over the years



# MISSION ROADMAP

2022

2024

2026

2029

2031

2032

2034

Demonstration mission

Communications satellite sent to Mars

Rover sent to Mars to select the settlement location

Six cargo missions including a second rover. The rovers prepare the settlement for the arrival of the humans. Life support systems will have produced water and a breathable atmosphere before the first crew even departs

First crew departs and flies to Mars in seven months

First crew and hardware for second crew land

Second crew and hardware for third crew land





# **IMPORTANCE OF THE ROBOTIC 2022 MISSION**

- Provide credibility and world wide brand awareness: the launch and landing of the first private mission to Mars will be on the news around the world
- Every step Mars One takes towards the 2022 mission increases Mars One's reach and improves its ability to convert that reach to revenue
- Relatively low risk, because the lander would use the same design as the 2007 NASA Phoenix mission, using the same supplier (Lockheed Martin)
- Cost effective: ~ 400 million US\$





# MARS SETTLER TRAINING AND SELECTION ROAD MAP

- 200,000 round 1 applicants started the application to be in the first team
- 500+ remaining round 2 candidates were interviewed
- 100 round 3 candidates remain
- 3-6 teams of 4 crew members will be hired to train full time for the mission. Selection process will be repeated every year after
- Teams will drop out for different reasons and are replaced
- 2031

2019

Eligible teams will be selected by the Mars One selection committee. The audience will determine which team goes first. Backup teams will be standing by

# COST OF THE MISSION

MARS



# **EXPECTED MISSION COST: 6 BILLION US\$**

- About US\$ 1.5 m spent to date
- US\$ 0.4 bn for the first unmanned lander, that will launch in 2022
- US\$ 0.2 bn for the comsat that will launch in 2024
- US\$ 0.9 bn for the first rover that will launch in 2026
- US\$ 2.5 bn for all the outpost hardware to be launched to Mars in 2029
- US\$ 2.0 bn for the human mission departing in 2031

US\$ 6 bn total for the first manned mission including preparations

US\$ 3.7 bn per follow-up manned mission – once per 26 months





# REFERENCES

- Lockheed Martin performed a first contract for Mars One's first mission, analysing if the NASA Phoenix platform can be used for Mars One's first unmanned mission.
- Paragon performed contracts for the design of the Mars suit and the life support system
- For every major component (rocket, rover, living units, ...), the requirements, budgets, and timelines have been discussed with experience prospective suppliers

# **PROSPECTIVE SUPPLIERS**

Mars One intends to have strict customer / supplier relations with its aerospace partners, giving Mars One the flexibility to switch if better solutions become available.

- Launcher: SpaceX
- 2022 lander & other Mars landing systems: Lockheed Martin
- Rovers: MDA / Astrobotics Mars inflatables: ILC Dover
- Life support systems: Paragon Space Development corporation
- Mars Transit Hab: Thales Alenia Space



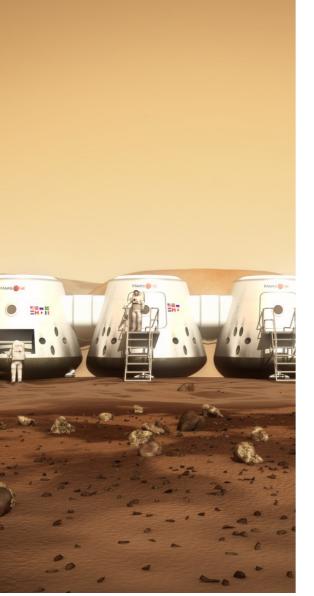
# **REVENUE PROJECTIONS**

MARS

MARS

BRYAN VERSTEEG / MARS ONE

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# **REVENUE STREAMS FOR MARS ONE VENTURES**

- Merchandising
- Mars settler applications
- Advertising on video content
- Broadcasting rights
- Marketing related sponsorships and partnerships

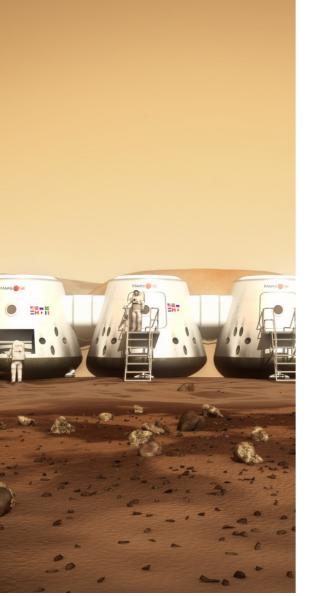
Mars One Ventures has included these sources of revenue in its financial projections because there is an existing track record within Mars One or there are relevant comparisons.

# **OTHER REVENUE OPPORTUNITIES**

- Events and theme parks
- Games and apps
- Business partnerships
- Intellectual property rights

While these are all high potential revenue streams, Mars One has excluded their revenue in the financial model because they are difficult to predict.

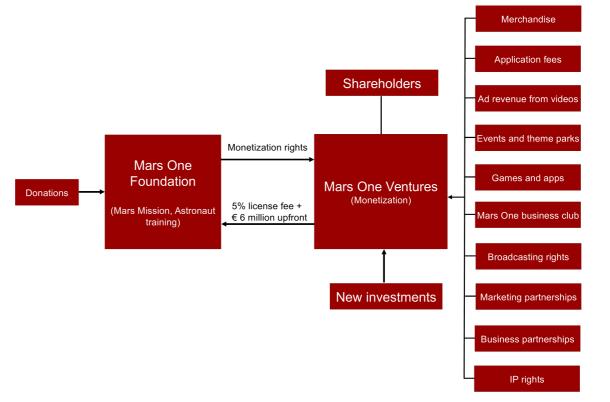




# MARS ONE STRUCTURE

All commercial revenues will benefit Mars One Ventures. Donations flow into the Mars One Foundation to finance the Mars mission. Mars One Ventures will pay a one time € 6 million upfront fee and a 5% quarterly license fee over gross revenue.

The agreement between Mars One Foundation and Mars One Ventures has no expiration date and can only be terminated by Mars One Ventures.







# **PROJECTED VISITORS TO MARS ONE WEBSITE**

Mars One generates revenue from website visitors through merchandise sales, application fees and advertising revenues. Mars One has had over 17 million visitors\* on its website since May 2012. Visitors come to the website because of Mars One's media presence, for example from progress picked up by news channels, on social media and other media sources.

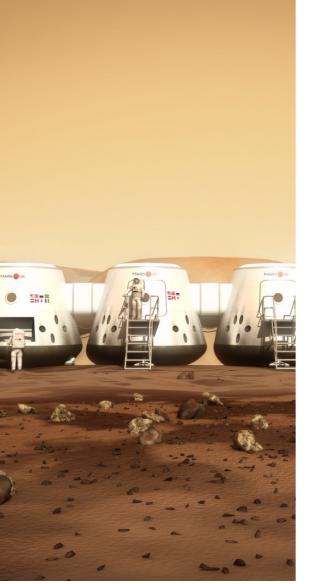
In its best four months to date (April, May and August 2013 and Feb 2015), Mars One has had on average 1.4 million visitors\* on its website. In the funded scenario, Mars One can make progress more swiftly. This is expected to increase the number of visitors to the website. The projected future website visitors of the first 15 months (Oct 2017 – Dec 2018) can be found below.

| Month    | Reach (per<br>month) ** | Visitors (per<br>month) |
|----------|-------------------------|-------------------------|
| Oct 2017 | 0.020%                  | 1,400,000               |
| Nov 2017 | 0.023%                  | 1,610,000               |
| Dec 2017 | 0.026%                  | 1,820,000               |
| Jan 2018 | 0.030%                  | 2,100,000               |
| Feb 2018 | 0.035%                  | 2,450,000               |
| Mar 2018 | 0.040%                  | 2,800,000               |
| Apr 2018 | 0.045%                  | 3,150,000               |
| May 2018 | 0.050%                  | 3,500,000               |
| Jun 2018 | 0.060%                  | 4,200,000               |
| Jul 2018 | 0.070%                  | 4,900,000               |
| Aug 2018 | 0.080%                  | 5,600,000               |
| Sep 2018 | 0.090%                  | 6,300,000               |
| Oct 2018 | 0.100%                  | 7,000,000               |
| Nov 2018 | 0.120%                  | 8,400,000               |
| Dec 2018 | 0.140%                  | 9,800,000               |
| Total    | 1st year                | 65,030,000              |

\*\* % reach of the world population



\*Google Analytics historic reports

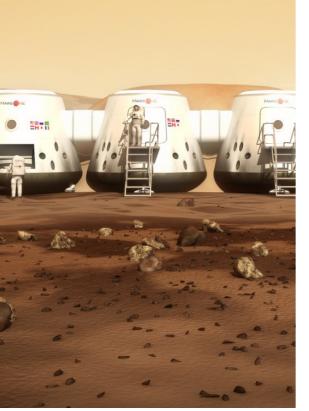


# **PROJECTED VISITORS TO MARS ONE WEBSITE**

After the first 15 months, website visitors numbers are expected increase further because of additional progress in combination with more, and more interesting content on the website. Mars One's suppliers will start construction of the mission hardware around 2019 with more and more to share in the years following.

|      | Reach (per | Visitors per  |
|------|------------|---------------|
| Year | year) **   | year          |
| 2018 | 0.929%     | 65,030,000    |
| 2019 | 2.000%     | 140,000,000   |
| 2020 | 4.500%     | 315,000,000   |
| 2021 | 7.000%     | 490,000,000   |
| 2022 | 9.000%     | 630,000,000   |
| 2023 | 10.000%    | 700,000,000   |
| 2024 | 12.000%    | 840,000,000   |
| 2025 | 13.000%    | 910,000,000   |
| 2026 | 14.000%    | 980,000,000   |
| 2027 | 15.000%    | 1,050,000,000 |
| 2028 | 16.000%    | 1,120,000,000 |
| 2029 | 17.000%    | 1,190,000,000 |
| 2030 | 18.000%    | 1,260,000,000 |
| 2031 | 25.000%    | 1,750,000,000 |
| 2032 | 25.000%    | 1,750,000,000 |

\*\* % reach of the world population



# JUSTIFICATION OF WEBSITE VISITOR PROJECTIONS

- Mars One's listing contributes significantly to Mars One's financial credibility
- The funds raised will enable faster progress and all progress will be used for content generation, drawing more website visitors
- Mars One expects to re-open the job vacancies for Mars settlers in December 2017. The previous application round resulted in significant increase of website visitors. With the additional progress and the added credibility because of the funding, the next round is expected to be even more successful
- Technical progress will result in appealing content and in experts talking more positively about Mars One
- Mars One will create a documentary series around the Mars settler selection with one or more partners, to increase brand awareness and drive traffic to the website
- The selection process will be repeated each year to replace teams that drop out and to increase the number of teams in training to about 10-15
- In 2022, Mars One's first unmanned mission will launch and Mars One expects by then most people in the world will have heard about Mars One

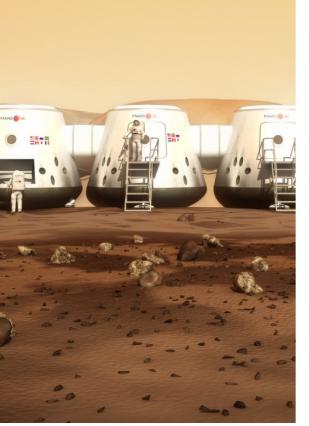




# MERCHANDISE SALES

In 2015, the average conversion rate for merchandise orders was 0.048%. The average order value was US\$ 33. Current margins on merchandise are about 70%. For future revenues, the margin has been estimated more conservatively at 50%. Order value is expected to increase due to customer willingness to spend more as credibility grows and due to more expensive items, including toys. The expected mission progress will increase conversion rates compared to today. As a justification for that: Mars One has already seen conversion rates of 0.39%\* in December 2013 and January 2014, when Mars settler applications and the first contract with Lockheed Martin had just been announced. In those two months, Mars One sold US\$ 300,000 worth of merchandise. Note that conversion rates never increasing beyond what was already achieved in 2013, which is a conservative estimate.

|          | Conversion  | Average |             |      | Conversion  | Average |           |
|----------|-------------|---------|-------------|------|-------------|---------|-----------|
| Month    | Merchandise | order   | Revenue     | Year | Merchandise | order   | Reven     |
| Oct 2017 | 0.048%      | \$33    | \$22,176    | 2018 |             |         | \$9,214,  |
| Nov 2017 | 0.060%      | \$34    | \$32,844    | 2019 | 0.390% *    | \$50    | \$27,300  |
| Dec 2017 | 0.080%      | \$35    | \$50,960    | 2020 | 0.390%      | \$55    | \$67,567  |
| Jan 2018 | 0.100%      | \$36    | \$75,600    | 2021 | 0.390%      | \$60    | \$114,660 |
| Feb 2018 | 0.150%      | \$37    | \$135,975   | 2022 | 0.390%      | \$60    | \$147,420 |
| Mar 2018 | 0.200%      | \$38    | \$212,800   | 2023 | 0.390%      | \$60    | \$163,800 |
| Apr 2018 | 0.250%      | \$39    | \$307,125   | 2024 | 0.390%      | \$60    | \$196,560 |
| May 2018 | 0.300%      | \$40    | \$420,000   | 2025 | 0.390%      | \$60    | \$212,940 |
| Jun 2018 | 0.350%      | \$41    | \$602,700   | 2026 | 0.390%      | \$60    | \$229,320 |
| Jul 2018 | 0.390%      | \$42    | \$802,620   | 2027 | 0.390%      | \$60    | \$245,700 |
| Aug 2018 | 0.390%      | \$43    | \$939,120   | 2028 | 0.390%      | \$60    | \$262,080 |
| Sep 2018 | 0.390%      | \$44    | \$1,081,080 | 2029 | 0.390%      | \$60    | \$278,460 |
| Oct 2018 | 0.390%      | \$45    | \$1,228,500 | 2030 | 0.390%      | \$60    | \$294,840 |
| Nov 2018 | 0.390%      | \$46    | \$1,506,960 | 2031 | 0.390%      | \$60    | \$409,500 |
| Dec 2018 | 0.390%      | \$47    | \$1,796,340 | 2032 | 0.390%      | \$60    | \$409,500 |
|          | Total 1st   | year    | \$9,214,800 |      |             |         |           |



### MARS SETTLER APPLICATIONS

Mars One had its first job opening for Mars settlers in 2013. Applicants paid a small registration fee. In 2013, settler applications had a 3.96% conversion ratio, with the average conversion ratio for paid applications at 0.23%. The average registration fee paid was US\$ 25. Mars One will repeat the selection process every year in order to increase the number of teams in training and to replace teams that drop out.

With the progress enabled by more funding, Mars One predicts an increase of paid conversions and amounts for the next years. Cost of processing applications is estimated at 50% of application revenue.

|      | Conversion | Number of  | _    | _             |
|------|------------|------------|------|---------------|
| Year | rate       | applicants | Fee  | Revenue       |
| 2018 | 0.230%     | 142,646    | \$40 | \$5,705,840   |
| 2019 | 0.350%     | 490,000    | \$40 | \$19,600,000  |
| 2020 | 0.400%     | 1,260,000  | \$40 | \$50,400,000  |
| 2021 | 0.400%     | 1,960,000  | \$40 | \$78,400,000  |
| 2022 | 0.400%     | 2,520,000  | \$40 | \$100,800,000 |
| 2023 | 0.400%     | 2,800,000  | \$50 | \$140,000,000 |
| 2024 | 0.400%     | 3,360,000  | \$60 | \$201,600,000 |
| 2025 | 0.400%     | 3,640,000  | \$70 | \$254,800,000 |
| 2026 | 0.400%     | 3,920,000  | \$70 | \$274,400,000 |
| 2027 | 0.400%     | 4,200,000  | \$70 | \$294,000,000 |
| 2028 | 0.400%     | 4,480,000  | \$70 | \$313,600,000 |
| 2029 | 0.400%     | 4,760,000  | \$70 | \$333,200,000 |
| 2030 | 0.400%     | 5,040,000  | \$70 | \$352,800,000 |
| 2031 | 0.400%     | 7,000,000  | \$70 | \$490,000,000 |
| 2032 | 0.400%     | 7,000,000  | \$70 | \$490,000,000 |





### ADVERTISING REVENUE FROM VIDEO CONTENT

In 2015, the average visitor of the Mars One website watched 0.306 videos\*. Videos are served with advertisements, which generate revenue. With funding secured, Mars One will create more videos; first one per month, later at least one per week. This will increase the average number of videos a visitor watches. The revenue per video will increase with higher volumes because Mars One will be able to negotiate better deals.

**Revenue** \$2,624,982

\$8,400,000

\$22,050,000

\$39,200,000

\$56,700,000

\$70,000,000

\$84,000,000

\$91,000,000

\$98,000,000

\$105,000,000

\$112,000,000

\$119,000,000

\$126,000,000

\$175,000,000

\$175,000,000

Cost of production and distribution is estimated at 60% of revenue.

| Month    | Videos per<br>visitor | Revenue<br>per video | Revenue     | Year | Videos per<br>visitor | Revenue<br>per video |
|----------|-----------------------|----------------------|-------------|------|-----------------------|----------------------|
| Oct 2017 | 0.306                 | 0.002                | \$857       | 2018 |                       |                      |
| Nov 2017 | 0.5                   | 0.003                | \$2,415     | 2019 | 6                     | 0.010                |
| Dec 2017 | 0.75                  | 0.004                | \$5,460     | 2020 | 7                     | 0.010                |
| Jan 2018 | 1                     | 0.005                | \$10,500    | 2021 | 8                     | 0.010                |
| Feb 2018 | 1.5                   | 0.006                | \$22,050    | 2022 | 9                     | 0.010                |
| Mar 2018 | 2                     | 0.007                | \$39,200    | 2023 | 10                    | 0.010                |
| Apr 2018 | 2.5                   | 0.008                | \$63,000    | 2024 | 10                    | 0.010                |
| May 2018 | 3                     | 0.009                | \$94,500    | 2025 | 10                    | 0.010                |
| Jun 2018 | 3.5                   | 0.010                | \$147,000   | 2026 | 10                    | 0.010                |
| Jul 2018 | 4                     | 0.010                | \$196,000   | 2027 | 10                    | 0.010                |
| Aug 2018 | 4.5                   | 0.010                | \$252,000   | 2028 | 10                    | 0.010                |
| Sep 2018 | 5                     | 0.010                | \$315,000   | 2029 | 10                    | 0.010                |
| Oct 2018 | 5.5                   | 0.010                | \$385,000   | 2030 | 10                    | 0.010                |
| Nov 2018 | 6                     | 0.010                | \$504,000   | 2031 | 10                    | 0.010                |
| Dec 2018 | 6                     | 0.010                | \$588,000   | 2032 | 10                    | 0.010                |
|          | Total 1s              | st year              | \$2,624,982 |      |                       |                      |



# **BROADCASTING RIGHTS**

When Neil Armstrong and Buzz Aldrin landed on the Moon, almost everyone who had access to a TV watched it happen. Mars One provides an even grander event – human settlement of Mars – in the current media era, where unique content is a high-value asset. It is expected that more than four billion people will be connected to the Internet in 2032.

For comparison, find the revenue numbers for the Olympics and the FIFA World Cup below.

|                     | Olympics (2012)  | Fifa World Cup (2014) |  |
|---------------------|------------------|-----------------------|--|
| Broadcasting        | 2.5 billion US\$ | 1.7 billion US\$      |  |
| Sponsorships        | 2 billion US\$   | 1.4 billion US\$      |  |
| Games & Merchandise |                  | 0.9 billion US\$      |  |
| Revenue per event   | 4.5 billion US\$ | 4 billion US\$        |  |

Olympic revenue rises by 33% per cycle of 4 years FIFA WC revenue rose by 75% in the last cycle





# **BRAND CONNECTIONS**

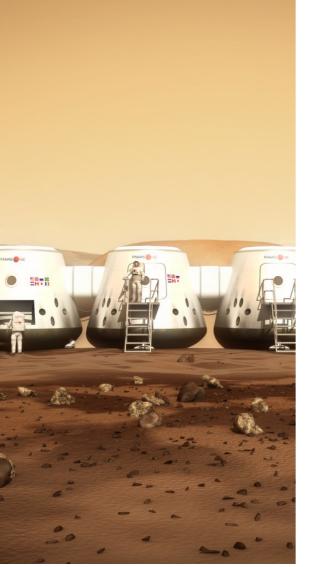
Several successful brand connections have already been achieved:

- Björn Borg (Spring Summer 2016 show was a tribute to Mars One)
- Paris Opera (A Faust by Berlioz inspired by Mars One)

Other possible brand connections:

- Recruitment partner to help select Mars One teams
- Car or construction company to build the rover
- Telecom company to help Mars One connect to Mars
- Technology partner
- Clothing partner
- Natural resources company as a mining partner
- Pharmaceutical company as a medical partner
- Beverage partner
- Watch partner
- Agricultural partner
- And many more

Brand catagories mentioned are examples only. Mars One has been in early discussions a few large brands.



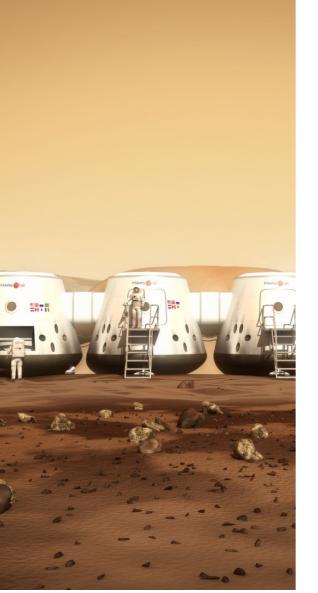
# VALUE OF BROADCASTING RIGHTS AND SPONSORSHIPS

The media landscape is changing rapidly. TV was the platform for the Moon landings. Who knows how humankind will watch the first human Mars mission? What we do know is that, independent of the distribution platform, the value of high-demand, unique media content is rising substantially.

Brands are already showing interest in working with Mars One. Revenue is estimated on the basis of partnership fees discussed with potential partners for this year.

| Year | Marketing<br>partnerships |
|------|---------------------------|
| 2018 | \$ 3,000,000              |
| 2019 | \$ 6,000,000              |
| 2020 | \$ 15,000,000             |
| 2021 | \$ 25,000,000             |
| 2022 | \$ 50,000,000             |
| 2023 | \$100,000,000             |
| 2024 | \$150,000,000             |
| 2025 | \$200,000,000             |
| 2026 | \$250,000,000             |
| 2027 | \$300,000,000             |
| 2028 | \$350,000,000             |
| 2029 | \$400,000,000             |
| 2030 | \$450,000,000             |

Revenue for 2031 (departure) and 2032 (human landing) is estimated in the next slide. Acquisition cost is estimated at 20% of partnership revenue, for marketing relationships and legal fees.



# **REVENUE OF BROADCASTING RIGHTS & SPONSORSHIPS**

Revenue of broadcasting rights and sponsorships in 2031 and 2032 is calculated by comparing to Olympic Games revenue.

| Event   | Revenue compared to<br>Olympic Games    |
|---|---|
| 2031 Liftoff preparations and selection of the 'winning' team | 0.33 Olympic event                      |
| Lift off of the first team                                    | 0.33 Olympic event                      |
| Trip & preparations for landing                               | 0.33 Olympic event                      |
| Landing   | 1 Olympic event                         |
| Rest of the first year on Mars                                | 1 Olympic event                         |
| Total   | 3 Olympic events -<br>US\$ 13.5 billion |

Cost of acquisition is estimated at 20% of broadcasting and sponsorship revenue. This will be spent on marketing relationships and legal fees.



# **DONATIONS (ONE-TIME AND MONTHLY)**

Donations to the Mars One foundation are not revenue for Mars One Ventures, but they are important to its business case because the donations contribute to the mission. In 2015, the conversion rate from visitors to one-time donations was 0.015%, and for monthly donations it was 0.014%. The average one-time donation was US\$ 35. The average monthly donation added up to US\$ 86 per year. With the progress enabled by funding, Mars One predicts higher conversion rates and amounts for the next years as the mission progresses. Cost of donations is estimated at 20% of donations revenue.

| s        | Conversion | Average  | Conversion | Average    |              |     |      | Conversion | Average  | Conversion | Average    |  |
|----------|------------|----------|------------|------------|--------------|-----|------|------------|----------|------------|------------|--|
| Month    | Donation   | donation | club       | membership | Revenue      | 1   | Year | Donation   | donation | club       | membership |  |
| Oct 2017 | 0.015%     | \$35     | 0.014%     | \$86       | \$12,308     | 1 T | 2018 |            |          |            |            |  |
| Nov 2017 | 0.030%     | \$37     | 0.020%     | \$90       | \$25,432     |     | 2019 | 0.450%     | \$65     | 0.113%     | \$120      |  |
| Dec 2017 | 0.060%     | \$39     | 0.025%     | \$94       | \$53,983     |     | 2020 | 0.500%     | \$70     | 0.125%     | \$125      |  |
| Jan 2018 | 0.090%     | \$41     | 0.030%     | \$98       | \$94,416     |     | 2021 | 0.500%     | \$70     | 0.125%     | \$130      |  |
| Feb 2018 | 0.120%     | \$43     | 0.035%     | \$100      | \$150,693    |     | 2022 | 0.550%     | \$70     | 0.138%     | \$135      |  |
| Mar 2018 | 0.150%     | \$45     | 0.040%     | \$102      | \$223,072    |     | 2023 | 0.550%     | \$70     | 0.138%     | \$140      |  |
| Apr 2018 | 0.180%     | \$47     | 0.045%     | \$104      | \$313,226    |     | 2024 | 0.550%     | \$70     | 0.138%     | \$145      |  |
| May 2018 | 0.210%     | \$49     | 0.050%     | \$106      | \$422,846    |     | 2025 | 0.550%     | \$70     | 0.138%     | \$150      |  |
| Jun 2018 | 0.240%     | \$51     | 0.055%     | \$108      | \$598,217    |     | 2026 | 0.550%     | \$70     | 0.138%     | \$150      |  |
| Jul 2018 | 0.270%     | \$53     | 0.060%     | \$110      | \$813,121    |     | 2027 | 0.550%     | \$70     | 0.138%     | \$150      |  |
| Aug 2018 | 0.300%     | \$55     | 0.065%     | \$112      | \$1,070,989  |     | 2028 | 0.550%     | \$70     | 0.150%     | \$150      |  |
| Sep 2018 | 0.330%     | \$57     | 0.070%     | \$114      | \$1,375,292  |     | 2029 | 0.550%     | \$70     | 0.170%     | \$150      |  |
| Oct 2018 | 0.360%     | \$59     | 0.075%     | \$116      | \$1,729,537  |     | 2030 | 0.550%     | \$70     | 0.190%     | \$150      |  |
| Nov 2018 | 0.390%     | \$61     | 0.080%     | \$118      | \$2,309,304  |     | 2031 | 0.550%     | \$70     | 0.200%     | \$150      |  |
| Dec 2018 | 0.390%     | \$63     | 0.085%     | \$120      | \$2,804,739  |     | 2032 | 0.550%     | \$70     | 0.200%     | \$150      |  |
|          |            | -        | Total 1    | lst year   | \$11,997,175 |     |      |            |          |            |            |  |



# OTHER BUSINESS CASES

For a number of other business cases, revenue has not been taken into account in the revenue model.

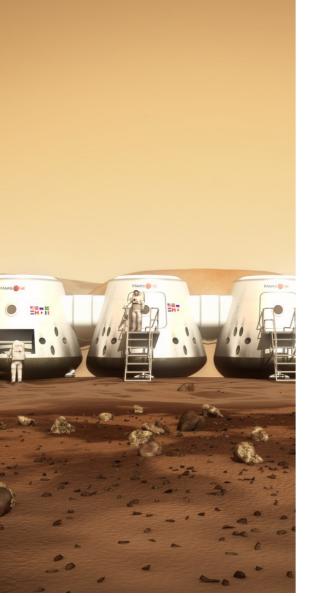
- Intellectual property rights: As Mars One contracts (aerospace) suppliers to develop the systems for the mission to Mars, Mars One will make sure it becomes co-owner of the IP rights. Examples that are likely to result in valuable IP are: 1) Growing food with less water and energy 2) Recycling systems 3) Lighter-weight solar panels
- Events and theme parks
- Games and apps
- Joint ventures around other Mars related business cases





# FINANCIAL SUMMARY\*

|      | MAR                           | S ONE FOUNDA     | TION          |             | Mars                              | ONE VEN       | TURES                   |
|------|-------------------------------|------------------|---------------|-------------|-----------------------------------|---------------|-------------------------|
| Year | Net revenue<br>from donations | Mission expenses | Cash flow     | License fee | Result before<br>license fee paid | Cash Flow     | Cumulative cash<br>flow |
| 2018 | 9,597,740                     | 11,390,267       | 5,834,754     | 7,627,281   | 5,755,245                         | -1,872,036    | -1,872,036              |
| 2019 | 51,309,039                    | 32,960,000       | 21,414,039    | 3,065,000   | 31,610,000                        | 28,545,000    | 26,672,964              |
| 2020 | 144,964,724                   | 126,690,000      | 26,025,599    | 7,750,875   | 79,803,750                        | 72,052,875    | 98,725,839              |
| 2021 | 254,031,781                   | 233,810,000      | 33,084,781    | 12,863,000  | 132,210,000                       | 119,347,000   | 218,072,839             |
| 2022 | 396,787,780                   | 404,790,000      | 9,743,780     | 17,746,000  | 186,790,000                       | 169,044,000   | 387,116,839             |
| 2023 | 512,631,262                   | 525,300,000      | 11,021,262    | 23,690,000  | 259,900,000                       | 236,210,000   | 623,326,839             |
| 2024 | 669,575,569                   | 705,550,000      | -4,366,431    | 31,608,000  | 352,680,000                       | 321,072,000   | 944,398,839             |
| 2025 | 812,950,702                   | 648,900,000      | 201,987,702   | 37,937,000  | 430,270,000                       | 392,333,000   | 1,336,731,839           |
| 2026 | 942,943,632                   | 947,600,000      | 37,929,632    | 42,586,000  | 491,060,000                       | 448,474,000   | 1,785,205,839           |
| 2027 | 1,073,643,269                 | 1,096,950,000    | 23,928,269    | 47,235,000  | 551,850,000                       | 504,615,000   | 2,289,820,839           |
| 2028 | 1,221,778,942                 | 298,700,000      | 974,962,942   | 51,884,000  | 612,640,000                       | 560,756,000   | 2,850,576,839           |
| 2029 | 1,398,417,048                 | 442,900,000      | 1,012,050,048 | 56,533,000  | 673,430,000                       | 616,897,000   | 3,467,473,839           |
| 2030 | 1,604,067,343                 | 525,300,000      | 1,139,949,343 | 61,182,000  | 734,220,000                       | 673,038,000   | 4,140,511,839           |
| 2031 | 2,053,388,609                 | 1,850,000,000    | 482,113,609   | 278,725,000 | 4,119,750,000                     | 3,841,025,000 | 7,981,536,839           |
| 2032 | 2,321,949,748                 | 1,850,000,000    | 975,674,748   | 503,725,000 | 7,719,750,000                     | 7,216,025,000 | 15,197,561,839          |



# SENSITIVITY ON MISSION COST AND WEBSITE VISITORS

- Two important unknowns in the business case are the cost of implementing the Mars mission and the numbers of visitors to the Mars One website
- The next slide shows the effect of more than doubling the cost of the mission. Cost in later years is penalized less than cost in earlier years because of higher uncertainty. Total mission cost in this scenario is US\$ 12 billion compared to the current US\$ 6 billion estimate
- The slide after that, shows the effect of halving the numbers of visitors to the website (which amounts to halving the revenues and therefore the license fee)





# FINANCIAL SUMMARY AT 200% ESTIMATED MISSION COST

|      | MAF                           | RS ONE FO           | UNDAT           | ION            |             | MARS                              |               | TURES                   |
|------|-------------------------------|---------------------|-----------------|----------------|-------------|-----------------------------------|---------------|-------------------------|
| Year | Net revenue<br>from donations | Mission<br>expenses | Cost<br>penalty | Cash flow      | License fee | Result before<br>license fee paid | Cash Flow     | Cumulative cash<br>flow |
| 2018 | 9,597,740                     | 11,959,781          | 5%              | 5,265,240      | 7,627,281   | 5,755,245                         | -1,872,036    | -1,872,036              |
| 2019 | 51,309,039                    | 36,256,000          | 10%             | 18,118,039     | 3,065,000   | 31,610,000                        | 28,545,000    | 26,672,964              |
| 2020 | 144,964,724                   | 158,362,500         | 25%             | -5,646,901     | 7,750,875   | 79,803,750                        | 72,052,875    | 98,725,839              |
| 2021 | 254,031,781                   | 327,334,000         | 40%             | -60,439,219    | 12,863,000  | 132,210,000                       | 119,347,000   | 218,072,839             |
| 2022 | 396,787,780                   | 647,664,000         | 60%             | -233,130,220   | 17,746,000  | 186,790,000                       | 169,044,000   | 387,116,839             |
| 2023 | 512,631,262                   | 945,540,000         | 80%             | -409,218,738   | 23,690,000  | 259,900,000                       | 236,210,000   | 623,326,839             |
| 2024 | 669,575,569                   | 1,340,545,000       | 90%             | -639,361,431   | 31,608,000  | 352,680,000                       | 321,072,000   | 944,398,839             |
| 2025 | 812,950,702                   | 1,395,135,000       | 115%            | -544,247,298   | 37,937,000  | 430,270,000                       | 392,333,000   | 1,336,731,839           |
| 2026 | 942,943,632                   | 2,037,340,000       | 115%            | -1,051,810,368 | 42,586,000  | 491,060,000                       | 448,474,000   | 1,785,205,839           |
| 2027 | 1,073,643,269                 | 2,358,442,500       | 115%            | -1,237,564,231 | 47,235,000  | 551,850,000                       | 504,615,000   | 2,289,820,839           |
| 2028 | 1,221,778,942                 | 642,205,000         | 115%            | 631,457,942    | 51,884,000  | 612,640,000                       | 560,756,000   | 2,850,576,839           |
| 2029 | 1,398,417,048                 | 952,235,000         | 115%            | 502,715,048    | 56,533,000  | 673,430,000                       | 616,897,000   | 3,467,473,839           |
| 2030 | 1,604,067,343                 | 1,129,395,000       | 115%            | 535,854,343    | 61,182,000  | 734,220,000                       | 673,038,000   | 4,140,511,839           |
| 2031 | 2,053,388,609                 | 3,700,000,000       | 100%            | -1,367,886,391 | 278,725,000 | 4,119,750,000                     | 3,841,025,000 | 7,981,536,839           |
| 2032 | 2,321,949,748                 | 3,700,000,000       | 100%            | -874,325,252   | 503,725,000 | 7,719,750,000                     | 7,216,025,000 | 15,197,561,839          |

Doubling mission cost results in lack of funding for the foundation from 2021. It can be solved by postponing Mars missions. The first unmanned mission (2022) would not have to be postponed in this scenario.



## FINANCIAL SUMMARY AT HALF THE REVENUES

|      | MAR                           | S ONE FOUNDA     | TION          |             | MARS                              | ONE VEN       | TURES                   |
|------|-------------------------------|------------------|---------------|-------------|-----------------------------------|---------------|-------------------------|
| Year | Net revenue<br>from donations | Mission expenses | Cash flow     | License fee | Result before<br>license fee paid | Cash Flow     | Cumulative cash<br>flow |
| 2018 | 9,597,740                     | 11,390,267       | 5,321,113     | 7,113,641   | 300,089                           | -6,813,552    | -6,813,552              |
| 2019 | 51,309,039                    | 32,960,000       | 19,881,539    | 1,532,500   | 15,805,000                        | 14,272,500    | 7,458,948               |
| 2020 | 144,964,724                   | 126,690,000      | 22,150,161    | 3,875,438   | 39,901,875                        | 36,026,438    | 43,485,386              |
| 2021 | 254,031,781                   | 233,810,000      | 26,653,281    | 6,431,500   | 66,105,000                        | 59,673,500    | 103,158,886             |
| 2022 | 396,787,780                   | 404,790,000      | 870,780       | 8,873,000   | 93,395,000                        | 84,522,000    | 187,680,886             |
| 2023 | 512,631,262                   | 525,300,000      | -823,738      | 11,845,000  | 129,950,000                       | 118,105,000   | 305,785,886             |
| 2024 | 669,575,569                   | 705,550,000      | -20,170,431   | 15,804,000  | 176,340,000                       | 160,536,000   | 466,321,886             |
| 2025 | 812,950,702                   | 648,900,000      | 183,019,202   | 18,968,500  | 215,135,000                       | 196,166,500   | 662,488,386             |
| 2026 | 942,943,632                   | 947,600,000      | 16,636,632    | 21,293,000  | 245,530,000                       | 224,237,000   | 886,725,386             |
| 2027 | 1,073,643,269                 | 1,096,950,000    | 310,769       | 23,617,500  | 275,925,000                       | 252,307,500   | 1,139,032,886           |
| 2028 | 1,221,778,942                 | 298,700,000      | 949,020,942   | 25,942,000  | 306,320,000                       | 280,378,000   | 1,419,410,886           |
| 2029 | 1,398,417,048                 | 442,900,000      | 983,783,548   | 28,266,500  | 336,715,000                       | 308,448,500   | 1,727,859,386           |
| 2030 | 1,604,067,343                 | 525,300,000      | 1,109,358,343 | 30,591,000  | 367,110,000                       | 336,519,000   | 2,064,378,386           |
| 2031 | 2,053,388,609                 | 1,850,000,000    | 342,751,109   | 139,362,500 | 2,059,875,000                     | 1,920,512,500 | 3,984,890,886           |
| 2032 | 2,321,949,748                 | 1,850,000,000    | 723,812,248   | 251,862,500 | 3,859,875,000                     | 3,608,012,500 | 7,592,903,386           |

Halving the revenues of Mars One Ventures reduces the profitability but does not cause cash flow problems.

# TEAM AND ADVISERS

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MARS

0

MARS

BRYAN VERSTEEG Mars one



# **BAS LANSDORP**

#### MARS ONE CO-FOUNDER AND CEO

- M.Sc. in Mechanical engineering (2003)
- Worked at Delft University of Technology on wind energy (2003-2008)
- Co-founder and general director of Wind energy start-up Ampyx Power (2008-2011). Founded the company and the team, secured investments, and established partnerships for the wind farm location
- Left Ampyx Power in 2011 and sold part of his shares to start Mars One. Ampyx Power is still very successful with a new general director that Lansdorp had approached as a potential investor
- Founded Mars One in 2011, built the team, the advisory board and international partnerships, secured a first round of investment in 2013 and kept the company running on a shoe string budget





# **ARNO WIELDERS**

#### MARS ONE CO-FOUNDER AND CTO

- M.Sc. Physics (1997)
- Worked in Dutchspace on the Very Large Telescope Interferometer Delay Line project and received a post-grad title (1997-2002)
- Research scientist at the Space Department of TNO TPD where he was involved in the Ozone Monitoring Instrument (OMI) project launched by NASA (2002-2005)
- Various positions at ESA (2005-2014), worked on projects such as:
  - Instrument Scientist for BepiColombo (Mercury mission) (2005-2007)
  - Payload study manager for the mission studies Cross Scale (2007-2009)
  - Payload study manager for the mission study JUICE, mission to Jupiter (2009-2011)
- Works part time in Mars One since 2011, part time at the European Space Agency





# NORBERT KRAFT

#### CHIEF MEDICAL OFFICER

- M.D. from University of Vienna
- Worked at Japanese Space Agency and NASA
- Completed a 110 day isolation chamber project as commander of an international mixed gender crew and a spaceflight simulation experiment in Moscow
- Received "The NASA Group Achievement Award 2013" and the 2010 Award for "Outstanding Accomplishments in the Psychological and Psychiatric Aspects of Aerospace Medicine"
- Author of over 40 papers in the field of aerospace medicine, including a seminal paper on intercultural crew issues in long-duration spaceflight
- Fellow of the Aerospace Medical Association





# MARS ONE VENTURES AG TEAM

- The current team performs tasks for both Mars One Ventures AG and for the Mars One Foundation
- The passion of the current team is Mars exploration, not monetization
- Hiring an excellent team for Mars One Ventures AG is one of the top priorities: Mars One Ventures AG is currently seeking a CEO from the world of media, who knows how to monetize a story, a CFO with experience in stock exchange listed companies and a CCO with experience in media deals



### MARS ONE'S ADVISORY BOARD\*



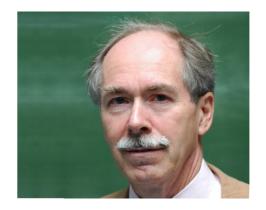
#### **DR. MASON PECK**

Dr. Mason Peck is a professor in Mechanical and Aerospace Engineering at Cornell University and served as NASA's Chief Technologist from late 2011 through 2013. He previously held positions at Honeywell, Boeing and Bell Helicopter.



#### **DR. PETER SMITH**

Dr. Peter Smith is a Professor Emeritus of Planetary Sciences at the University of Arizona where he held the Thomas R. Brown Distinguished Chair of Integrated Science. His career spans 4 decades during which he has participated in many of the space missions to various planets in the solar system.



#### PROF. DR. GERARD 'T HOOFT

Prof. Dr. 't Hooft is a Nobel Prize winning theoretical physicist with a long record of accomplishments and honors. He was given the Nobel Prize for physics in 1999 in recognition of his work to clarify the quantum structure of electro-weak interactions. He has also been awarded the Spinozapremie prize and has a number of honorary doctorates. He is currently a senior lecturer of theoretical physics at the University of Utrecht, Holland.