

# CLIMBING ARSIA MONS

## A comprehensive guide to reach high level of competitiveness in Terraforming Mars

Originally meant for 2p Base + Preludes + Hellas & Elysium  
Usable with 3p and/or Venus

*Written by Ghaleon*

### 1 - Preface

Thank you for showing interest in this. It will be a long read, as I am a verbose person who likes to write, and Terraforming Mars isn't an easy game to play and to get really good at. Being concise is one of my concerns, but so is being thorough and giving you all the tools you need. I'll try my best to be both, as I know how time can be precious. There will be some grammatical mistakes here and there, no doubt, as english is only my second language (french being my first)

Sometimes, I may sound a bit pompous. While absolutely not my intention, odds are, I'm a better player than you are simply due to having more experience and having discussed this game a lot with top-ranked players. Other times, I may sound like a total buffoon. That's because I'm trying to be funny (emphasis on *trying*) and it has actually helped me write this thing and complete it.

I mostly play on the steam app, in a 2 players Base + Preludes format, though sometimes I mix Venus in. Having a few thousand games under my belt, it goes without saying I love this game a lot. Having started in 2021, I reached an ELO of 2100 in 2022, an achievement ever shared by about 15 other players at the time. Having a peak rating of 2191, I once reached top 2 in mid/late 2022, and have been in the top 10 regularly since then. Nowadays, my rating is quite swingy, usually between 2000 and 2100. I tend to play short and fast games, and I'm not afraid to risk ELO playing a much lower ranked opponent, which tends to explain the swings.

I've learnt from people far better than I was, and I've been teaching a lot to people over the years, many of which have arguably become better than me. That doesn't mean everything that is written here is the One Truth, especially if you're playing a wildly different format, like

5P with Colonies. But I will try to only write information in this guide that feels consensual among top players.

If you wish to contact me, you can find me on the steam app and on Hodgepodge's discord server as Ghaleon. I'll be happy to play with you if you wish.

## 2 - About this guide

If you're reading this, you likely wish to improve as a TfM player for a variety of reasons. You may wish to impress the ladies (or the gentlemen), to crush your significant other repeatedly until they file for divorce, to become the ringleader of your middle-school friends, to gather a fanclub at your local game shop, or any other perfectly sane and valid reason.

This guide will only teach you how to *win*. Not every time, but very consistently against the huge majority of players. The rest is up to you. Don't hold me responsible if your childhood crush didn't answer favorably to your attempts when showing them your mad terraforming skillz.

Oh, and it certainly won't help you having *fun*. It could actually be quite the opposite, as competitive play can be stressful. There are multiple ways to play board games. This is the *optimal* way for a given format, but it doesn't mean it's the *right* way for you. If you and your friends are playing casually and having fun doing so, then I'm very happy for you, and you may not find anything worth your time here.

And know that the road isn't easy. TfM is quite a complex game, as there are exceptions to every good rule of thumb that can be made about the game. The information here may not be easy to assimilate fully. If you keep losing more than you'd like despite thinking you've been closely following my advice... Well, odds are, either I failed at explaining something critical... or mistakes were made. And I know full well identifying them is hard without any external input. Practice makes perfect.

For the most dedicated among you, I can only encourage to join Hodgepodge's discord server, where the best online TfM players have been lurking for years, endlessly debating about everything you could think off about the game, from the value of a Victory Point at every stage to whether Strip Mine is usually worth playing or not (spoilers: it isn't). There, you will even be able to stream your own games so that the top players can comment on them and give you helpful advice. It's a good alternative to reading this guide, and arguably a better one. The link to said server can be found in the useful resources section.

What this guide isn't meant to be :

- An explanation on rules. I assume you have played several times and have mastered every rule in the game. If you've just bought TfM, go discover it by yourself and enjoy the learning process !

- A definitive tier list of corporations, preludes and cards. Despite me evaluating every card in the game in the relevant section, tier lists, especially of corporations are of very little use to you if you are what I would call an “intermediate player”. Knowing how to draft, how to recognize your winning condition and play accordingly, how to sequence your actions and how much to overextend for milestones/awards, are much more important factors among many others. Therefore, I will be covering corporations in one of the later parts of the guide, as they’re not fundamental to becoming a decent player.
- A mathematical study trying to quantify the worth of every card, resource and actions in Megacredits (MC). While this approach can be interesting to compare some cards to others, it helps very little during actual play (and would make the whole guide unreadable for most people). Some old guides telling you, for instance, that a VP is worth on average 5 MC can be very misleading and lead you to some bad habits and decisions that will cost you games you would have won had you played less “efficiently”. If the above sentence doesn’t make sense, don’t worry and keep reading, it ultimately will, I promise.
- A universal guide to TfM. The number of players and expansions (especially Colonies) drastically change the dynamic and balance of the game, to a point where a lot of the info here won’t be applicable. This guide is meant to be used in 2P, Base + Preludes format, with draft on. Almost everything should be true for 3P, but anything higher than that is a whole different beast that I will nonetheless be discussing in a later section. Still, even if you’re playing a wildly different format than I usually am, odds are, you’ll find something interesting here you hadn’t thought of.
- A holy scripture you should blindly follow. Everything is situational in TfM and I can’t cover every situation. If what is said in the guide contradicts common sense for your particular game, odds are, following common sense is the thing to do.

If you’re a steam app player, following this guide, even loosely, should hopefully let you reach 1800 ELO. Mastering every advice I give may get you to 2000, maybe 2050 ELO. If you’re already around 1800, then the first few sections may not be that beneficial to you. Feel free to go directly to the section discussing milestones and awards and resume from there, as this is probably a thing you could improve upon to climb higher.

Anything higher than 2050 is tricky and requires learning to stray from the good ol’ formula when necessary. Alright, I’ve taken enough of your time with the introductory stuff. Let’s get to the important parts !

### **3 - Understanding the core of the game and identifying your win condition, or why can Earth Catapult and AI Central backfire**

This may sound boring, but I assure you it is essential. Let’s take a moment to ask ourselves what is, at its core, Terraforming Mars. Asking myself this question, if I could find a

universal answer, it would be something like this : a tactical and strategic (drafting) card game where you have to manage resources in order to overcome your opponent once 3 tracks get maxed. That last part is of extreme importance : the ending of the game isn't set in stone, and that is what makes the game so interesting, as it depends on players actions. Some games will end gen 8, others will end gen 11. The shorter the game, the better some strategies are, and the reverse is also true.

This first part of the guide will be discussing that aspect and the different strategies in broad strokes, as that is absolutely fundamental to know which one your opponent is pursuing, and which one could win you a particular game.

I'm sure we all agree that to win the game, we need to be playing cards, as Standard Projects (SP) can't carry us to victory alone. All the cards in TfM can be put in either of two categories, sometimes both :

- They participate in raising one of the 3 parameters (oceans, oxygen temperature), either directly (most space events) or indirectly (by giving you plant or heat production): we'll call them terraforming cards.
- They give you some sort of production or resource (MC, minerals, card draw, a valuable tag) and/or flat Victory Points (VP) : we'll call them engine cards.

Cards can belong to both categories, but they usually lean one way over the other (there are exceptions, like Methane from Titan, which is a weird one, being truly neutral). Those categories correspond to the two big strategies in TfM : the Terraforming strategy, and the Engine-building strategy. During a game, each player usually should pursue one of these strategies over the other in order to maximize the chance of victory. These roles are fluid, but do exist and understanding what your opponent's strategy is will help you find what yours should be.

As a good rule of thumb, here is what each strategy entails :

| The Terraformer tends to...  | The Engine builder tends to...   |
|--|--|
| End the game fast, before the opponent's heavily built engine can reap its benefits.   | Make the game go for as long as they need to overcome the terraformer.   |
| Buy only a few cards : mostly space events that directly terraform, and cards that help develop production of resources that push parameters forward (plants & heat, mainly).      | Actively search for engine building cornerstones, and busted synergies   |
| Be aware of the last parameter likely to be maxed (called the "lagging parameter") and tries to push it faster so it doesn't lag much behind the first two (by SPing if necessary) | Usually not push the lagging parameter... while taking as much points as they can from the Terraformer's "best track", that is likely to max first |

|   |   |
|---|---|
| Not care too much about MC production or mineral production. Their production develops naturally : each time they raise TR, it's 1 MC they'll be getting in every subsequent generation | Have good MC and mineral production, but a lesser TR compared to opponent   |
| Play on the board early and secure ocean rebates  | Play a lot of cards with VP on them, but doesn't completely give up on board, especially lategame.  |
| Secure at least two milestones and a 8 MC funded award, ideally, as those contribute more to score in shorter games   | Try their best to get at least one milestone, grabbing a second one only if it doesn't require too much overextending. They fund 1st award early if it feels safe enough before the Terraformer does. |

Of course, I'm speaking in very broad strokes : it's more of a spectrum, lines are often blurry and it's certainly possible to pivot from a strategy to another during the course of the game, or to stay flexible by going for a middle-of-the-road approach (which we'll call midrange)

Generally speaking, a Terraformer usually wishes to end the game gen 10 at the latest, while the Engine-builder should want the game to last at least 11 gens so they can overcome the Terraformer. You can now probably get where I'm going with this : if most or all of your games end in gen 11 or later, something is definitely wrong, and at least one player (most likely both) isn't correctly evaluating the state of the current game and not pursuing the terraforming strategy hard enough.

Thinking you have to play a lot of cards to win is a mistake many players make. In fact, if you ask any top player what the "best" strategy usually is, the answer will be without a shadow of doubt : the Terraforming strategy. The reason behind that is quite simple : it is more consistent. Terraformers are looking for fewer cards, and for nothing terribly specific. Sure, they love seeing Deimos Down, they love seeing GIA, they love having Mohole Area gen 1. But they will be happy if instead of these, they get Ice Asteroid, Big Asteroid, Towing a Comet and a very early Soletta. They will be happy if they get Insects instead of Nitrogen Rich Asteroid; if they get Algae and Grass instead of Kelp Farming. It might seem counter-intuitive, but the Terraformer simply has more paths to victory, as the Engine-builder can't hate draft everything from them, and they need fewer cards to begin with. They're also the ones controlling the game pace and applying pressure on the Engine-builder in the early game, who is then more likely to make mistakes in hard choices about what to play with their limited resources.

The Engine-builder, on the other hand, is looking for very specific cards that will allow them to snowball. The most important of those cards notably include Earth Catapult, Research Outpost, Antigravity Technology, Ecological Zone, Viral Enhancers, Mars University, AI Central, Restricted Area, Mass Converter... we'll be discussing each of them later. If they get all of that reasonably early, they're likely to win even in a short game. But they may not find many of those, as the deck is huge and the Terraformer should actively be hate-drafting

these cards from them (or taking them for themselves, as some of these, like Viral Enhancers and Ecological Zone, are simply so good they also benefit the Terraformer). And while they're searching for those cornerstones, the Engine-builder also needs to develop an economy (while the Terraformer gets their economy naturally by pushing TR, as stated before). After all, having a ton of cards in hand doesn't matter much if you can't play them.

Now, I know that some among you may be thinking "come on, Earth Catapult is so busted even Terraformers want to play it. Same with AI central... right ?"

Well, the answer to that is a very clear "*no*", more often than not. While these cards are strong in a vacuum, if you've got your terraforming strategy going smoothly, they are just a distraction and the opportunity cost of playing them is simply too great. Buying and playing AI central early costs a whole gen of production, and it has steep requirements, which are costly themselves. Besides, it is likely to whiff and not give you something useful for a Terraformer before long. Similarly, Earth Catapult costs 26 to buy & play. That's also a whole generation of production, and it will take a lot of time to pay for itself. Playing EC as the Terraformer gen 1 or 2 is good if your setup isn't that strong and you're looking to be flexible and give yourself outs. Otherwise, it is a distraction : playing it will most likely prolong the game by 1 gen and could be the difference between winning and losing.

Example :

Ecoline with Huge Asteroid and Mohole preludes, having bought GIA, Asteroid, Towing a Comet, Kelp Farming and Optimal Aerobraking from the starting hand.

Such a hand is a 9/10, so good that the game is most likely won already, as long as I play towards my win condition. I don't need Earth Catapult. If I see it in the gen 2 draft (or even in the starting hand), and decide to buy & play it, either a) it won't be good as I won't be playing many more than 10 cards after it, or b) I will be inclined to buy cards to make it worth, ruining an insane terraforming setup to develop engine-building elements that will prolong the game, add uncertainty, and could lead to a loss if the opponent gets lucky and plays very well.

You may think this is an extreme example, but I guarantee it's not so far-fetched. While it's certainly uncommon to have such a good setup and see Earth Catapult gen 2, it happens occasionally. Seeing Earth Catapult later (let's say, gen 7) with a clear Terraforming strategy would be much more common, for sure, and buying & playing it could be even more of a mistake.

Which strategy you should be pursuing depends on a number of factors, which are:

- Your starting corporation: Ecoline is without surprise more suited to a Terraforming strategy, while Mining Guild or Vitor prefer the Engine-building way. Not every corporation is specialized though : Teractor and Creditor, for instance, are fine with both
- Your starting prelude choices and starting hand
- Your opponent's played cards : if it's gen 2 and they have played Mars University and Earth Catapult already, you'd be right to be afraid, and you should do everything to end the game as fast as you can, as if both of you go Engine-building, you'll most likely end up losing.

- Your opponent's hand size : we'll speak about it later, but a Helion opponent with 2 cards in hand has limited options to go Engine-building. He'll likely be a Terraformer.
- Cards you've seen in draft and have passed to your opponent

#### **TL ; DR :**

- **Always ask yourself what you and your opponent's win conditions are : they will be changing over the course of the game.**
- **Decide for a Terraforming / Midrange / Engine-building strategy accordingly.**
- **Remember that there is no real dichotomy between Terraforming / Engine building : it's a spectrum. You'll often find yourself starting with a midrange strategy, slightly leaning one way or the other.**
- **It is ok to try pivoting from one to the other if you need to adapt your strategy to how the game is going...**
- **...but committing hard to a given strategy is usually better if your starting hand clearly calls for it**
- **As Terraformer, always ask yourself whether a card that doesn't actively help you end the game is really worth buying/playing.**
- **As Engine-builder, don't buy mediocre cards just because they might be "okay" in a couple of generations. Look for cornerstones and prioritize them. Find the right balance between economy and card draw. And don't play pure VP cards in the midgame (e.g, Breathing Filters), it's best to wait on them for as long as you can.**

## **4 - The importance of having a strong ground presence and of ocean rebates, or why you shouldn't play your first tile in the middle of a barren desert just to get a random card**

This section is of particular importance if you're a Terraformer, as most points in a short game are usually coming from TR, greeneries, and milestones.

For example, it isn't rare for Terraformer to end (and win) a gen 9 game with a decent overall score of 83, where the distribution of points would look like this :

- 55 from TR ;
- 8 from greeneries (not accounting for them pushing the o2, as that's included in the 55 from TR, and for city points)
- 5 from one city
- 10 from milestones (Terraformer and Gardener)
- 5 from an 8-funded award (Landlord)
- 0 from VP (in a rush setup, it isn't rare for VPs to be negative).

But it also applies to Engine-builders, who likely still want a strong ground presence and mess with the Terraformer's placement.

As you can see, greeneries are of paramount importance : each greenery is worth 2 points as long as the o2 isn't maxed, and without them, cities have no uses. Thus, you should actively be trying to a) save your plants, as a plant holds any value only if it brings you to 8 and doesn't get destroyed, and b) get maximum tile placement bonuses when putting them down on the board.

Let's take a look at the default map, called Tharsis. There are many spots of importance. Some give cards, some give plants, some give minerals. A common mistake is to go hard for the card spots. While Ascræus Mons is fine due to its proximity to the western plant filled area, the two card spots in the south are actually very bad early game as, should you get 8 plants to convert into a greenery, you will be forced to place said greenery in the barren desert, giving you neither plants nor ocean rebates.

A very important part of the ground game is what is called "ocean walking" : it is usually done by converting next to a few oceans for a bunch of rebates, putting another ocean down nearby, gaining some plants from it and some rebates again, and converting again and again, even if you have to SP a greenery for it.

Let's look at a concrete and common example on the screenshot below :

Here, Ecoline has started with Great Aquifer prelude, and has (correctly) chosen to get the 2 oceans in the middle, for 4 plants and 2 MC in rebates. Then, in the first turn of the 1st gen, Ecoline, having 7 plants, chooses to convert north of those 2 oceans, for 2 plants and 4 MC rebates.

Ecoline then passes and chooses to keep cash. They start the next gen with 4 plants (2 from prod, 2 from the placement bonus of their 1st greenery) . They decide to play another ocean west of the first two with Subterranean Reservoir for 2 plants and 2 more MC in rebates. Next action, assuming their plants survive, Ecoline will then be able to SP a greenery west of their first, getting 4 more MC in rebates and another plant, which would allow them to convert again (as they have 7 plants) west again, just NE of Noctis, for another 2 MC and a plant.

If we calculate what Ecoline has gained from all this in 2 gens, it amounts to :

- 6 TR (2 from Great Aquifer Prelude, 1 from the 1st "free" greenery, 1 from Subterranean Reservoir, 1 from the SP greenery, and 1 from the last "free" greenery), which is basically 6 MC prod + 6 VP
- Pushing the game forward by a lot, potentially enabling some cards with requirements (Algae, Kelp Farming, Small Animals) soon.
- Already securing a milestone (Gardener) whenever they'd like to, and being very likely to gain a 2nd (Terraformer) since by gen 2 they already have 26 TR out of 35 required.
- 14 MC in rebates (2 from the second Great Aquifer Ocean, 4 from the 1st greenery, 2 from Subterranean Reservoir, 4 from the SP greenery, 2 from the 3rd greenery).



... For a mere cost of :

- 1 prelude card (we haven't detailed what our other prelude was in this case)
- 14 (3+11) to buy and play Subterranean Reservoir
- 23 to play an SP Greenery gen 2.

That's it. This is a very good sequence. As you can see, SPing a greenery here was extremely beneficial, as it allowed to get not one, but 2 greeneries, getting a lot of MC back in rebates as a nice cushion, and indirectly allowed most of Ecoline's plants to survive a hypothetical, but nasty, asteroid. Going for those oceans with Great Aquifer was far better than going for, say, the double card + titanium ones.

It is also important to note that Ecoline didn't play Subterranean Reservoir gen 1, choosing to play it gen 2 instead. By doing so, they lost a MC from waiting a gen to get the TR, but they minimized the impact of a possible counterplay, either by a nasty asteroid which would otherwise have destroyed more plants in gen 1, or by a tile from the opponent stealing the very good spot and getting 4 rebates for themselves while preventing Ecoline from ocean walking.

Ideally, Ecoline would now like to get to the southern side of those oceans to be able to ocean walk there, by "teleporting" with a cheap tile (Nuclear Zone or Restricted Area would be the best).

The above strategy, once again, doesn't apply only to Ecoline. Creditor, for instance, with its innate ability giving it a 4 MC rebate when SPing a greenery, is also particularly effective at ocean-walking. It is not rare for Creditor to be SPing 6 or 7 greeneries during a single game. But it applies to any corporation to a lesser extent, even when you're leaning heavily into Engine-building : when you have 6 plants and access to a 2 plants spot on the board (preferably with ocean rebates) SPing a greenery then allows to instantly convert for another, as in this screenshot below :

Okay, so now that we've been talking about the power of ocean walking and SP greenery, I think cities also deserve a mention here. Many players tend to play a lot of cities to "leech" points from the opponent, sometimes even by SPing. This is almost always a very weak play.

A SP city costs 25 (a bit less if you're Tharsis or Creditor). If you're doing that to leech 2, or even 3 points in the midgame while you're the Engine-builder, then you're not playing cards from your hand that you need to play to get your engine going and you're delaying and weakening your potential to scale into the late game. In other words, you're not playing into your win condition, but merely trying to counterplay your opponent in a not very efficient way. It usually equals to instantly forfeiting the game.

Now, the situation is of course different if you have a good city card in hand (e.g, Cupola) that you can pay for in steel. But as a general advice, SP cities should usually only be played late game when you have nothing better to do (which certainly happens). It is not rare for the Terraformer to end the game with 0 or 1 city, while having a ton of greeneries next to the oceans.

Ok, so where to put your first cities ? Well, there are 3 good spots on the default map (Tharsis), which are usually highly contested. They are shown below, in order of importance.

- Spot 1, in the east, gives access to the best rebates spot and a lot of plants.
- Spot 2, in the west, gives access to a ton of plants, but no rebates easily
- Spot 3, in the south, gives access to southern ocean walking and 2 cards, but is pretty weak for finding plants.

Don't forget cities can be used to teleport.

**TL ; DR :**

- Put those greeneries next to as many oceans as you can to get maximum rebates.
- Don't be afraid to "SP greenery (action 1) to grab plants + convert plants into a greenery (action 2)" if you have 5 (as Ecoline) or 6-7 plants. It's a good move and it saves your plants from a hypothetical asteroid.
- Don't SP cities early/midgame to "leech" 2 points from the opponent's greeneries
- Don't feel obliged to "protect your greeneries" by playing a city. If you're winning, it may needlessly prolong the game by 1 more generation, putting you at risk.
- Playing on the ground is important for everyone. Engine builders should also be looking for those plant tags !

## 5 - Heat : an underappreciated resource by most players

This is another very important section. For a long time, players, even high ranked, didn't like heat production cards. They thought they were generally inefficient and quickly lost value. And it is true.

Why are they important then ? Isn't TfM a game where playing efficiently matters ?

Yes, it surely is. But something else is even more important than efficiency, and if you've read this far, you may find the answer yourself : **being in the capacity of ending the game when you're ahead.**

There are 3 parameters to max, and temperature is one of them. There are 19 heat bumps to take in order to max temperature. Cards will allow you to take 15 of them (2 from GIA, 2 from Big Asteroid, 3 from Deimos, 2 from Nuke Zone, 2 from Lava Flows, 1 from Asteroid, 1 from Comet, 1 from Nitrogen Rich Asteroid, 1 from Deepwell Heating), but odds are, about half of those cards will not be seen and shall remain hidden in the deck until the end. 1 heat

bump can also be gotten freely by raising the o2 track. And GHG Bacteria can usually get 1 or 2, sometimes more with a synergy, if it is played.

In short, in an average gen 10 game, you can expect 6 to 10 heat bumps to be taken care of naturally by cards. If you're the Terraformer, that still leaves a lot you have to take by other means. And if temperature is the lagging parameter, your opponent shouldn't be helping you with raising it... So, you may be on your own. SPing an asteroid a few times is fine if you have to in order to end the game and win (despite it being very inefficient), but doing it 10 times ? That's 140 cash (110 if you have Standard Tech) of investment. You're not likely to be able to do that without the Engine builder outscaling you.

You may see where I'm going with this: **heat production is necessary and valuable early on**. Sure, you don't get immediate benefits from it. But if your win condition is to end by gen 9, then it's surely better to commit hard to playing a gen 1 Soletta for 38 cash (with some prelude help, hopefully) than to SP Asteroid 8 times over the last 3 generations.

Remember : the Terraformer shouldn't give up on any parameter, and actually should make sure the last one isn't lagging too far behind ! You got it. Temperature is usually, but not always, the lagging parameter.

There's nothing worse than having 10 plant prod and < 4 heat prod lategame, having maxed o2 by gen 6, then being outscaled by the opponent and losing in gen 12 because you were unable to end sooner due to you not playing heat producing cards early on.

Therefore, if you're pursuing a Terraforming or a Midrange strategy, you should seriously consider playing these as soon as you can, preferably gen 1 : Soletta, Mohole Area (Robotic Workforce works wonder with this one), Beam From a Thorium Asteroid (called BeFAT), Lunar Beam, GHG Factories, as they're the best heat prod cards in the game, and they quickly lose value: for 38 cash, a gen 1 Soletta will take care of 8 heat bumps by itself in a gen 10 game, which would have costed 112 cash in SPs, as long as you manage to get one of the heat prod bonus from the temperature track (which is likely to happen), Comparatively, a gen 4 Soletta will take care of only 5 bumps at most. It is a tremendous difference.

The same reasoning applies to the other cards I cited above, despite Mohole Area usually being worth it for a bit longer due to having other qualities.

I feel like Optimal Aerobraking deserves a special mention, as it's an incredible card for the Terraformer early on, and can allow you to get literally free heat bumps in the long run.

A quick note about energy producing cards: don't underestimate energy converting into heat after a delay of 1 generation. As stated, BeFAT and Lunar Beam are great cards if played gen 1. But even Giant Space Mirror (GSM) is a decent gen 1 play for future heat generation.

As you can probably guess, based on this reasoning, the Temperature raising preludes (Huge Asteroid, MRA) and the energy/heat producing ones (Power Generation, Mohole, Polar Industries...) are usually very valuable to the Terraformer.

TL ; DR :

- Heat production is necessary for the Terraformer to be able to end (and win the game)
- The sooner you invest into it, the better
- As a Terraformer, try to have a balanced production of heat and plants
- If Temperature is the lagging parameter and you're an Engine-builder, don't bump the temperature track : it will only help your opponent end the game and get to his win condition ! If you've got heat, bank it and consider funding Thermalist instead.

## 6 - About opportunity cost, money inflation, and different stages of the game.

I've been talking about opportunity cost numerous times already, without explaining what I meant by that. Well it's because I'm about to do it now. Every action you play, at any point of the game, as an opportunity cost. It is not the same thing as the actual cost of the card (e.g Acquired Company's cost to buy & play is 13).

Rather, opportunity cost is what playing the card at a given moment prevents you from playing in the near future. So, opportunity cost is dependent on what other plays you could make instead.

The higher the face cost of a card, the higher the opportunity cost usually is. For instance, buying and playing Earth Catapult for 26 gen 1 usually prevents you from playing pretty much anything else. sometimes has a huge opportunity cost too. As an example, playing Strip Mine gen 2 if you have NRA in hand and already two tags played is likely a bad move, as it would prevent **NOT DONE**

## 7 - The value of energy, or why Hackers is horrendous in almost every situation

Energy is a valuable resource many players don't account for when deciding whether or not to play a given card.

The most flexible resource of all after MC, it serves two purposes :

- it converts into heat with a delay and contributes to terraforming the Temperature track

- It's a necessary condition to playing a TON of cards in the game ( / ), including **every** city to be put on Mars not called Research Outpost, but also some valuable very early production cards for an Engine builder (Building Industries, Strip Mine, Electro Catapult), some strong drawing cards (AI Central, Development Center), a good scoring card situationally (Physics Complex) and all the very situational o2 bumpers (Water Splitting Plant, Ironworks, Steelworks, Ore Processor).

As you can guess, the SP Power action for 11 MC is quite bad, to the point that many energy-costing cards aren't worth playing anymore if you have to SP for them. As an example, Open City is a good lategame card, being better than SP city in every regard as long as you've got the energy to afford it. If you don't have said energy, it becomes completely unplayable (unless you have a ton of steel available and no other use for it), as you're basically adding 11 to its cost. The same reasoning applies to basically any good city (Noctis, Cupola, Immigrant, Domed Crater, Capital, Open City), and even more so to the usually mediocre ones (Underground, Lava Tube Settlement, Corporate Stronghold).

Sadly, the options to gain energy for an interesting cost aren't plentiful : there's the awesome Mass Converter, obviously, and the decent Quantum Extractor, but they have steep requirements, and that's only two cards in the deck. Other than that, we've got Solar Wind Power, Fueled Generators, Peroxide Power, Geothermal, Giant Space Mirror, Power Plant, and Artificial Photosynthesis, all of which are at least decent in a vacuum and easy to play without any requirement.

There's of course Energy Tapping and Power Supply Consortium, but you're just as likely to find them as to get hit by them.

The other energy producing cards have either too big of a requirement despite being decent (Fusion Power, Windmills, Great Dam, Biomass Combustors), are only good early game (BeFAT, Heat Trappers and Lunar Beam), have a huge drawback (Nuclear Power), are simply not that impressive compared to SP Power (Wave Power, Lightning Harvest, Deepwell Heating, Space Mirrors, Solar Power) or are complete trash in most realistic situations (Energy Saving, Power Grid).

So, our options to produce energy are limited... which means we should be spending said energy carefully.

Note : Thorgate with Standard Tech is an exception to this rule. Being able to SP Power for 5 MC is insane value.

Of all the bad options to spend said energy (and they are numerous, from the gen 7 Strip Mine or Building Industries, to the random Noctis City for no reason other than being able to do it), **Hackers** is **BY. FAR. THE. WORST.**

**TL ; DR :**

- **Energy is valuable as delayed heat for terraforming or Thermalist purposes**
- **A huge proportion of cards in the game cost energy or energy prod.**
- **Efficient energy producing options are limited.**

- Therefore, don't throw your sole energy prod away in the early/midgame for only an average play : you'll never know which energy costing card you'll find in the next drafting phase, and you could regret it.

## 8 - Engine enabling cards (“cornerstones”) and synergies : what to prioritize and when to stop gaining production

Ok, enough of the filthy Terraformer role we've been talking about at length during the previous sections. This very long section is for the Engine-building freaks which I'm sure are (too) numerous among you. Here, we will be talking about science, jovians, mineral production, card draw, global discounts and some key synergies.

Before we start, let's say something we have already said... but likely haven't said enough : **even if you're heavily into the engine-building role in a particular game, you should still be trying to terraform efficiently, except the lagging parameter !** Usually, an Engine builder still ends the game with around 35 TR, sometimes more. So if it's gen 9 and you're sitting there at 21 TR, well, you... uh... most likely messed up somewhere. Remember that every point of TR you get is a point your opponent won't be getting.

If the above doesn't make sense, I suggest you read section 3 again, until it does.

With that said, let's start talking about what I like to call **cornerstones**. We've discussed them before briefly. These are the cards that you are looking for. They are strong alone, but they are even stronger together - yes, like Power Rangers. But be careful : some of them are so strong that even a Terraformer opponent can benefit heavily from them and use them to pivot and suddenly build an engine of their own in the hopes of outscaling you.

They are, in no special order of importance (remember, everything is situational) :

- Mars University (T)
- Research Outpost (T)
- Earth Catapult
- Anti-Gravity Technology
- Viral Enhancers (T)
- AI Central
- Ecological Zone (T)
- Mass Converter
- Earth Office
- Media Group
- Optimal Aerobraking (T)
- Advanced Alloys
- Restricted Area (T)

- Nitrogen Rich Asteroid (T +++)
- Insects (T)
- Kelp Farming (T)

If there's a (T) next to the name of the card, it means a Terraformer could likely be interested in them too, in most cases, for a number of reasons : a) they are the cheapest draw engines available with huge upsides, so they're not much of a commitment (Mars U, Restricted Area), b) they are insanely efficient at scoring points and go well with a plant heavy strategy a Terraformer is likely to pursue (Viral Enhancers / Ecozone), c) they synergize heavily with space events, which the Terraformer tends to play a lot (Optimal Aerobraking)

Finally, the last 3 cards in this list feel like they need an explanation : they are simply the best plant producing cards in the game. As said before, an Engine builder wants ground presence and contest the o2 track. Thus, NRA, Kelp and Insects are of paramount importance for a Terraformer, but are also very good to you.

One could argue these 16 cards are the best in the game overall, aside from the big space events (GIA, Deimos and such). They'd mostly be right.

As you can see, there's no jovian on that list. Blasphemy ? Not really. Jovians aren't always bad, but they don't fit in every game. Keep reading.

Let's divide the engine cards in a few categories (I won't be talking here about the event synergy of Media Group + Optimal Aerobraking, as there's not much to say except that it's very strong, as they're both listed above as cornerstones):

#### 1) Global discounts :

- Research Outpost, counter-intuitively, is the best card of the 3 in a vacuum despite only granting -1. There are a bunch of reasons for that : it has a science tag with no requirement, a building tag (making it payable in steel, and useful for builder milestone) and it gives ground presence, messing with the opponent's ground game. It is also the best card of the 3 for a Terraforming player, by far.
- Earth Catapult has a huge opportunity cost (less so if you have Earth Office or are Creditor/Teractor), and takes a while to pay for itself and generate a profit. It's best seen and played very early (gen 1 or 2), where it can be game defining, but is still usually good for an Engine builder until gen 8 or so, sometimes even okay later.
- Anti-Gravity Tech holds the most inherent value of them all, with its cost not being outrageous and the 3 VP on it. Still, the steep requirement is where it hurts, but it's synergistic with card draw, at least. Much better than Earth Cat lategame, If you can get this down by gen 4 or 5 (easier said than done) you should be able to win, most of the time.

#### 2) Science :

- Mars U + Olympus Conference : these cards are strong on their own, especially Mars U, but together, they are insane. You may be thinking it's

better to be playing Olympus before Mars U. That is often, but not always, wrong. Assuming you have cards you can cycle with Mars U, it will draw you 1 card per science tag, while Olympus only gives you 0.5 per science tag.

- Quantum Extractor + Mass Converter : incredibly strong midgame combo assuming you meet the requirement. Getting 10 energy prod, 2 science tags, -4 on all space cards, and potential draws from Mars U/ Olympus for 21 MC (+6 if you have to buy them) is insane. Quantum is not that good on its own though, unless played early.

A quick summary of science cards that are almost always worth playing to get AI Central/Quantum/Mass/AGT online : Research Outpost, Mars U, Olympus, Search for Life, Solar Wind Power, Inventor's Guild, Dev Center, GHG bacteria, Natural Preserve, Viral Enhancers, Research, Gene Repair, Robotic Workforce (as long as it has a good target, usually at least worth 4 MC prod / 1 ti prod / 2 steel prod / 4 heat prod), Trans Neptune Probe, Lagrange Observatory, Standard Technology, Research Coordination, Artificial Photosynthesis.

Yes... that's pretty much every science tag in the game not called :

- Breathing Filters (huge opportunity cost midgame for no other benefit, so compared to Gene Repair, you wish to play Filters as late as possible, preferably in the very last gen)
- Regolith Eaters (only worth considering gen 1, and even then...)
- Physics Complex (worth it only if you use steel for it or are sure you'll use the action)
- Fusion Power (very decent card but tough requirements, and playing it to get Quantum and Mass online will probably result in too much energy, unless you have Physics Complex or Power Infrastructure )
- Designed Microorganisms : try not playing this after gen 3 (gen 4 at the very latest if you have to)
- Adaptation Technology : very situational, don't play it unless you're fairly certain it will help you play 2 or more key cards (Kelp, Bushes, Birds) a gen earlier.
- Medical Lab : a strong science card that you don't want to be playing too early. Generally speaking, try playing it for at least 4 MC prod. There are situations where it's correct to play it earlier to enable AI/Mass/AGT, but it's more the exception than the rule.

Science is strong and many Science cards have strong synergies with others. **That being said, remember it is important to find a balance between card draw and economy.** Having 4 card draw by gen 6 is certainly good, but it likely won't save you if you're sitting there at 20 TR with 3 MC prod without any global discount yet.

Which brings us to the next category...

### 3) MC production

MC is the most flexible of all resources. Therefore, MC production cards are usually good, especially early on. They are of less value for a Terraforming strategy, since MC is then mainly gained via TR.

**The lesser your TR, the more MC prod is important.**



Many of the really good MC production cards have an earth tag, and there are some strong synergies to be found. However, every production card has a “*breakoff point*” which is a generation where it’s not worth playing it anymore. This breakoff point gets delayed if the card is discounted, of course.

Despite their usefulness, MC production cards are not to be prioritized in drafts over space events or engine cornerstones. They’re usually a decent 2nd or 3rd pick between gens 2-4 though.

Let’s quickly go over most of the at least decent ones. Cards listed here are “pure” MC prod cards. Thus, I won’t be listing here cards that give MC prod but mainly serve another purpose, like Protected Valley or Shuttles).

The ones usually worth considering at some point:

- Earth Office : despite not giving MC prod directly, it gives a -3 discount on every earth tag and almost immediately pays for itself, which is insane. Super strong card to always keep in the starting hand, even for a Terraforming player, and at least decent for an Engine builder at most points of the game.
- Sponsors & Acquired Company : good cards to keep from starting hand and play ASAP. Play them gen 3 at the latest unless discounted or got freely from a random draw.
- Cartel : Huge synergy potential. Don’t play it for less than 3 prod. Waiting on playing it for more can be greedy, but is sometimes correct.
- Miranda Resort : similar to Cartel in principle, but quite different in the way it’s played (unless you’re Saturn Systems). It having no earth tag itself and being higher cost (due to the jov tag and the VP) means it’s usually best to wait on it until the mid/late game to be discounted and paid for with titanium.
- Satellites : See Cartel. Decent very early for at least 3 MC prod, or late if heavily discounted. It’s tough to find the right time to play it, so it’s often not a good buy.
- Medical Lab : strong mid/late card, when it gives you 4+ prod and you can pay for it in steel. Nice synergy potential with its science tag and really strong Robotic Workforce target
- Space Hotels : Excellent gen 1 or 2, especially if discounted. If not, try playing it gen 4 at the latest
- Commercial District : it’s a teleporting tile, which is valuable, but the energy cost can be troublesome. Play it carefully, preferably with steel. Can still be valuable lategame.
- Capital : useful mid/late when paid with steel and getting 6 rebates as a cushion.
- Electro Catapult : a very strong card in the first few gens, and a good way to be spending energy compared to, say... Hackers. It is usually better to sell a steel than to sell a plant, but there are exceptions. When in doubt : sell steel.
- Space Elevator : very similar to Electro Catapult, only a bit less flexible. Usually worth playing until gen 5 at the latest. After that, don’t bother

The ones that are usually mediocre to downright horrendous :

- Immigration Shuttles : too high of an opportunity cost, takes aeons to generate profit. Rarely worth it at any point.
- Toll Station : extremely situational and awkward to play, no matter your strategy

- Food Factory : Just don't play this in 98% of your games. Plants are too valuable early, and there are much better uses for your steel.
- Tropical Resort : Please don't use this early for the MC prod under ANY circumstance. Even for its 2 points late game, it's situational.
- Callisto Penal Mines : only very early, AND only if you're Saturn
- Zeppelins : you do remember that early cities usually aren't worth it, don't you ? Very situational card, mostly used to secure Banker lategame.
- Insulation : Just don't. Heat prod is more valuable than MC prod. Its only use is stealing Banker (it is very good at it, though)
- Hackers : *No. Please no. No, no, no ! Dear lord, no....* In all seriousness, Hackers can be a good gen 1 play if you've got a lot of energy and no use for it in the next few gens. See the dedicated section in the F.A.Q.

#### 4) Mineral production

So, are you one of these cheeky fellows who like nothing better than getting 10 titanium production over the course of the game, thinking that's how you'll become the kindergarten boss ? Hmm ? No ? Too bad... I know I am.

It certainly is fun to be buying and playing Building Industries gen 7, right ? Or Io Mining gen 8 ? Or to use Industrial Center 5 times ?

Yes, yes... it is fun, alright. And it is also absolutely horrendous and a good way to obliterate any chance of winning.

Mineral prod, like MC prod, hits a breakoff point quite early during the game, for the exact same reason. Only, both steel prod and titanium prod gives you resources that are way less flexible than MC : a mineral is only valuable if you have a way to spend it. If you don't have a way to spend it, then it's even worse than playing Hackers (and that's saying something) : it means you literally wasted the best resource in the game (MC) for.. well, no gain at all.

That's not completely true, actually, as there is a way for unspent minerals to not be a total waste, and that way is called winning the Miner award. It's still bad : when funding Miner (and hopefully winning it), you have to basically factor into its cost the total value of all those steel and titanium for which you have nothing to do with.

So, using minerals to win Miner is certainly better than nothing, but that's not saying much.

I know I'm sounding like I hate minerals, but I really don't. Having a few of them is almost always good, except in a pure rush setup. Having a lot of them is only good if you have enough card draw to find targets until the end of the game. There's simply a balance to find.

You may feel like you already know all this. And you probably do, in principle. But if you're below 1800, odds are that you're playing mineral producing cards far later than you should.

Let's go over most of them real quick :

- Io Mining : highest opportunity cost in the game. Play it gen 2 at the latest (unless it's lategame and you're sitting on 10 useless titanium with a bunch of jovians played, of course)
- Asteroid Mining : see above. Slightly more playable than Io due to lower opportunity cost, but not after early game.
- Building Industries : good in the first 3 gens unless you have to SP power for it (in which case it's always horrendous)
- Underground City : Usually bad early/mid, but there are exceptions. As a city, it is a decent steel dump lategame if you have no other steel target.
- Mine : very good in the first 2 gens, usually don't play after gen 4 unless discounted and/or got from a random draw
- Titanium Mine : see Mine.
- Vesta Shipyard : a decent gen 1 investment using MC if you have any chance of going Jovians and nothing better to do. Otherwise, only play it later if you have a bunch of titanium available and you're actively pursuing jovians.
- Industrial Center : it's a good card, but because of the tile, not because of the action. A good advice would be to activate the action in the first 2 gens, but only if you've got nothing else to do, as the opportunity cost is quite high and it's not very efficient.
- Mining Rights : very strong card due to the tile and flexibility, which makes it still a good card in the midgame (and even lategame for Landlord award purposes). Great way to teleport around the map.
- Mining Area : See Mining Rights. A bit cheaper, a lot more restrictive. Still good for the same reason as Mining Rights.
- Strip Mine : This one is usually a trap. A Terraformer doesn't need it, and would rather bump o2 by playing greeneries, and let energy become heat. An engine builder obviously wants it played early (if ever), but the 2 energy prod is a steep requirement that **is not** worth SPing energy for, even if it allows you to take the free temperature bump from the o2 track. More often than not, this is a pass. Only worth it if you know you're leaning heavily into engine building, you have cheap energy to spare, and it's still early game.
- Asteroid Mining Consortium : devastating in the early game, where it's quite a high priority draft despite having a high opportunity cost. Would definitely keep it from the starting hand if I have a way to get titanium prod. After gen 5, this usually isn't worth playing if you're not going jovians.
- Great Escarpment Consortium : worse than AMC in every regard despite being much cheaper, this is usually not worth considering after gen 3.

Generally speaking, no more than 4-5 steel prod should be played when going engine, and no more than 3-4 titanium prod. Anything higher than that encounters a high risk of not being able to find targets anymore. There are of course exceptions, as the more card draw you have, the more likely you are to be finding targets (it's not unheard of for a Mining Guild with 10 steel prod to be able to spend it all).

Advanced Alloys deserve a special mention here. It allows all these cards to be played 1-2 gens later than you normally would and can be a very strong card if you also have card draw to find more targets for your minerals. If you're already too rich in minerals and can't find targets, Advanced Alloys is a waste of money.

## 5) Bio combo

This is probably the most important of them all with Science, as it is extremely strong. It also fits very well in a Terraforming strategy that is not a full rush, since Terraformers tend to like plant tags.

The Bio-combo is made of 3 cards (though some people add Herbivores to the mix) :

- Viral Enhancers
- Ecological Zone
- Decomposers

Viral and Ecozone are more important than Decomposers. As you may have noticed, I consider both of them as cornerstones of an engine at the start of this section. This combo gives tremendous value to plant and animal tags, and to a lesser extent, microbes.

Viral makes any animal tag (including Ecozone) much better and allows you to convert more easily, while also being cheap and having a valuable science tag. As for Ecozone, it is not rare for it to be worth 5-6 VP at the end of the game, which is insane value relative to its cost, for a card that is also a valuable tile.

I won't be discussing microbes synergies here (those based on GHG Bacteria are the most important ones, refer to detailed card analysis), nor every plant card in the game.

## 6) Jovians

Ah, we've kept them for last. Jovians are big cards that are overcosted by quite a lot. They're not efficient. And often a bad idea. It shouldn't be a surprise, as the game is named *Terraforming Mars*, not *Terraforming the Fucking Moons of Jupiter*. And Rei Hino (Sailor Mars) has always been better than Makoto Kino (Sailor Jupiter). I'll die on that hill.

Anyway, if you're playing them (with the exception of AMC, and a very early Methane From Titan or BeFAT to terraform), it is because you're hoping to find the *Jovian multipliers*, which are :

- Io Mining Industries
- Ganymede Colony
- Water Import from Europa (WIFE)
- Terraforming Ganymede (TG)

Those cards aren't good on their own (except a gen 1 Io Mining), and WIFE is definitely the worst of them in a vacuum, but they give a number of points equal to the number of jovs you've played.

Trying to collect them all is very fun. And sometimes, it works. But you shouldn't be forcing jovians every game you're going engine : most of them are good only gen 1-2 (Asteroid Mining, Io Mining, Methane, BeFAT), one of them is mediocre without synergy (Coloniser Training Camp), and one is usually just bad (Callisto).

So, what you should get from this is that a Jovian strat is only possible when you've got the right cards for it, usually as early as the starting hand. By all means, if you find Asteroid Mining, Terraforming Ganymede and WIFE in the first two gens, you should go for it (unless everything else in your hand, including corp & preludes, screams RUSH).

But also keep in mind that jovians are quite easy to counter : as the 4 mults can be hate drafted by your opponent (by doing so, they may pass you something else equally as good, though).

**TL ; DR :**

- Remember, an engine builder wants to terraform efficiently the non lagging parameters to steal points from the Terraformer !
- Careful when you're considering passing cornerstones to the opponent. Some engine pieces are so strong they will likely interest them, even if they're focusing on terraforming.
- Find a good balance between economy and card draw
- Don't play MC production cards too late, and try to factor in their opportunity cost. When in doubt, it's often better not to play them
- Don't play mineral production cards too late, and try to ask yourself if you are likely to find enough targets for them before the endgame.
- The Bio combo is overpowered. Keep saying that aloud until it's embedded in your mind forever.
- Pursue a jovian strategy only if you get several key pieces from the start.

## 9 - The real value of milestones and awards, or why funding Planner gen 2 can be game-losing on the spot

This part is important and is also responsible for a lot of losses that should actually have been wins among intermediate players. There will be no TL; DR.

Claiming a milestone costs 8 MC and gets you 5 VP. Anyone can see it's an insanely good deal, the very best in the game. In 2P, which is the focus of this guide, the first award is exactly the same deal of 8 MC -> 5 VP, only if you don't have to go out of your way to defend it. I call these 3 milestones and this 1st award "*the big 4*". The second award is 14 MC -> 5 VP. Still a good deal, but it's becoming trickier to fund it. Finally, the 3rd award is 20 MC -> 5 VP : an okay deal, but a very risky one that is often game losing if it backfires.

Let's talk about milestones first. There are several key things about them to have in mind :

- You don't have to claim a milestone if the opponent isn't actively threatening the same milestone, or another milestone that would be the 3rd

- Milestones have an opportunity cost that is not negligible early game, (8 cash is a lot), likely preventing you from playing something good for your development, which you would have played otherwise.
- Those 5 points are less valuable the longer the game goes, as both players' scores will be much higher (e.g : Milestones are important if you score 80 in 9 gens, much less so if you score 135 in 12 gens)
- Failing to get a milestone over funding it is a 16 MC swing in your favor (+8 for you, -8 for opponent) and a 10 point swing in favour of the opponent (-5 for you, +5 for opponent).
- If you have to go out of your way (called "overextending") to get a milestone by playing random crap (e.g, playing a useless Physics Complex to fund Builder), then you have to factor that cost in, and suddenly the milestone may not be a good deal.

With that said, it becomes quite clear that :

- You should fund milestones as late as possible
- You shouldn't tunnel vision on milestones and mess too much with your game plan in order to fund them.
- If you know the game will be long (11 gens or more), milestones aren't that overly important
- If you know the game will be short (9 gens or less) you should pay more attention to them and may need to overextend more.

So... with that covered, let's ask ourselves which milestones are good on the default Tharsis map :

- Terraformer requires 35 TR. That's of course, a milestone destined to players pursuing a terraforming strategy, and it doesn't require them to alter their game plan at all, since they, well... want to terraform. -> **a very good milestone for terraforming players to take naturally, sometimes contested if both players have good terraforming setups (which happens often).**
- Mayor requires 3 cities. We stated earlier how bad cities were in the early game, as they cost a lot of money for little benefit -> **bad milestone, unlikely to be funded unless by a situational Tharsis / Mining Guild setup**
- Gardener requires 3 greeneries. We stated before that greeneries are important and contribute a lot to points in short and medium games, that both players should be playing on the ground, that ocean walking is as important, as is trying to convert plants before they get destroyed, even if it means SPing a greenery... -> **the most important milestone, pursued naturally by both engine builders and terraformers. Highly contested.**
- Builder requires 8 buildings. Buildings often grant energy, mineral prod, or are city cards. Some valuable science cards (Mars U, Olympus) often have a building tag too -> **A milestone clearly meant to be naturally claimed by engine builders. Not that easy to secure in time without playing random crap. Only contested if both players are leaning towards engine building.**
- Planner requires 16 cards in hand. Pretty much impossible to get when going for a terraforming strategy. Also impossible to get for an engine builder very early on without overextending and buying too much crap -> **a milestone an engine building player will usually try getting in the midgame when he has developed some card draw. Likely still requires overextending a little bit (which can be fine),**

**while waiting for global discounts and other cornerstones. Sometimes contested if neither player is terraforming early.**

As you can see, despite them all being 8 MC -> 5 VP, milestones aren't equal *at all*. Terraformer and Gardener are good, Mayor is mostly trash, Planner and Builder are situational.

For a heavily terraforming player, the plan is quite clear : naturally fund Gardener and Terraformer as late as you can (be careful not to get gardener stolen !!), get your 10 points, be happy you're trying to end the game fast as milestones are then more valuable, and don't give a damn about the last one, just rush to the end.

For a heavy engine building player, the plan is, again, quite clear : try to get Builder and Planner as late as you can, but before Terraformer gets funded. Also try contesting Gardener from the terraforming player if it doesn't cost you too much. If your opponent is building an engine himself, every milestone is likely to be contested.

If you only get one milestone, that's still fine as an engine builder (but a terraformer really likes having two to apply more pressure). Because remember, there's a 4th way of getting those 8 MC -> 5VP...

And that's by funding the first award, and not losing it. Contrary to milestones, the **1st award should be funded as early as you can while being confident enough**. If you don't, odds are, the opponent will beat you to it and fund his own award you have very little hope of winning for 8, leaving you to fund the much less appealing 2nd award for 14.

Said 2nd and 3rd awards should be funded quite late (if ever, for the 3rd), since the opportunity cost is high midgame and an award being stolen is absolutely devastating, being a 10 point swing. Remember : getting an award stolen is worse than throwing money away or giving free points to the opponent, as you're actually paying to give points to the opponent.

These, of course, are rules of thumb. Reality isn't so simple.

Often, your only hope is to fund a risky 3rd award, or to secure 2nd award midgame because the opponent already funded the 1st and is threatening another 2nd. But such moves are so game-defining they should be weighed cautiously.

I won't lie : in most cases, losing all of the big 4 leads to defeat, as it means the opponent has created a 20 point swing for 32 cash... which is insane value, and often means he has had the better early game setup by far, and will continue outscaling you in the late game.

Anyway, let's take a look at the awards on the Tharsis map :

- Landlord : 5 points to the one with the most tiles (on Mars and in space). As you know full well by now : greeneries are important to both players. And I've been praising cards that give a tile during previous sections. This is the reason why. Landlord is simply the best award, as both players should be getting tiles during the game. It is especially important for Terraformers, as they will most likely have a

headstart on it due to their high plant prod. -> **Most important award overall, and most contested, as putting stuff on the ground = points anyway. Terraformers should try funding it for 8 if they can do so confidently. Engine builders should try stealing it by catching up to them using lategame plants multipliers (Insects, Greenhouses), cities, cheap tiles (Mining Rights, Industrial Center and such), or Ganymede Colony.**

- Banker : 5 points to the player with the most MC prod. It is not one that should ever be funded for 8. And probably not for 14 either, as MC prod can be gained quickly and a huge number of cards give a few, while a few give a ton in the last gen -> **Usually the most risky of all. There are a whole bunch of cards that can flip this easily late game (Insulation, Cartel, Miranda, Satellites, Toll Station, Zeppelins being the main ones) but even Hackers (!!)** is good last gen if it guarantees a steal. In short : this is often a desperate fund from someone whose only hope is funding and defending it successfully.
- Scientist : 5 points to the player with the most science tags. This one is meant for Engine builders for obvious reasons, and usually gets funded, sometimes quite early, as it goes well with their game plan -> **A good award usually funded by Engine builders, who could even consider funding it for 8 if the opponent clearly has an advantage on another award (Landlord, usually).**
- Thermalist : 5 points to the player with the most heat. A tricky one. Terraforming players generally don't want to fund it unless they went overboard with heat production and the temperature track gets maxed first. Engine builders usually can't afford to either due to not having enough heat prod -> **Situational and usually risky to fund for both players. If ever funded, likely as 3rd award. Generally don't fund it as Helion. Optimal Aerobraking allows for some glorious last second steals.**
- Miner : 5 points to the player with the most minerals. Meant for Engine builders. We've discussed how going overboard on minerals is bad and why Miner actually costs more than it looks at first glance. Still, sometimes, funding it early is the correct choice to prevent a 8 funded Landlord by the opponent -> **Despite not being great, is the safest award for Engine builders (with Scientist). Be careful though, as it can actually be quite easy to contest it with Sabotage, Mineral Deposit and Hired Raiders.**

**TL ; DR : Not this time. Read it all, it's important :)**

## 10 - Notable differences between maps

With the previous section covering milestones and awards, it felt like a good time to be talking about Hellas and Elysium, which I haven't talked about yet.

Let's start with Elysium, as it is the most similar to Tharsis.

- The ground game is arguably even more important than on Tharsis here, with 2 awards (Estate Dealer and Desert Settler) being related to it, and the ocean rebates being extremely generous.



- Moreover, the Benefactor award clearly rewards terraforming and is usually funded early for 8. The last 2 awards (Celebrity and Industrialist) are meant for Engine builders.
- The Legend milestone should be the most contested of all, as most cheap events (Virus, Hired Raiders, Sabotage, Mineral Deposit...) are good cards anyway for any player.
- Generalist is situational but can usually be funded without too much overextending if you have the right cards for it (Robinson gets it easily)
- Specialist usually gets funded either with 10 MC prod (Engine builder) or 10 heat prod (Terraformer). A combo of Allied Banks + Business Empire preludes is ridiculous for it.
- Ecologist is often contested as well, with Ecozone being very good for it (as if it wasn't good enough already)
- Tycoon is the only milestone clearly meant for Engine builders, but it can be hard for them to fund it in time.

**It is pretty clear that Elysium is a terraforming focused map. Milestones here require less overextending than on Tharsis and are usually funded earlier. No matter your game plan, you should be playing north and contesting Estate Dealer here, as the ocean rebates are simply too good. Be careful of Protected Valley, Mohole Area, Artificial Ocean and Mangrove (especially the latter two) as they can steal it. The best city spot is the 3 plants spot in the middle. Don't put a city on Olympus Mons : that 3 card spot is tempting, but try getting it with other tiles (Natural Preserve, Nuke Zone...)**

Next is Hellas. It bears its name well, though I can hear Der Maister whispering in my ear that it's in reference to Ancient Greece. Anyway :

- Ocean rebates here are significantly worse than on other maps
- There is 0 milestone here clearly destined to Terraformers...
- ... And only 1 award (Cultivator), though Eccentric is usually fundable by the player getting the bio combo.
- I don't have much to say about milestones here. Jovians are a bit better than on other maps (and so is Saturn Systems) due to Rim Settler. Energizer (6 energy prod) usually requires some energy prelude or Mass Converter. Polar Explorer is the one Terraformers should try to get, as long as they have a way to teleport to the northwest where all the plants and ocean rebates are.

**This map certainly changes a lot of stuff compared to the other 2. Nothing here rewards investing into heat production, and the ocean rebates are trash, except in the northwest (where the Terraformer usually wants to place his first greeneries). Combine these factors with having 0 milestones rewarding Terraformers (except Polar Explorer, and even that isn't easy), and you get a map that clearly rewards engine building. Ecoline is significantly weaker here. Generally speaking, you shouldn't be going for a complete rush here unless your terraforming setup is really insane, and opt for a more midrangey approach.**

# 11 - Corporations evaluation

Okay, with us having covered the most basic stuff in previous sections, it is finally time to tackle what you've been waiting for: corporations. I have written this mostly with Tharsis in mind, but if some corps are significantly better/weaker on specific maps, I'll point it out. Prelude corps are included. Venus corps aren't, but will be discussed in the Venus section.

Keep in mind that (again) everything is situational, and there will be numerous times where picking a B tier corp over an S tier is the right thing to do. We'll be seeing such examples in the section discussing starting hands.

Finally, tier lists will *a/ways* stir some passionate debates. Such was the case among top players I consulted for feedback when writing this guide. It's impossible to make everyone happy here, and that's why I said I didn't like tier list sections. Still, the following is consensual enough among top players for me to be happy with it. So if you wish to contact me just to ask why I put X corp in B tier when in your eyes it deserves to be in C... please don't.

Small disagreements like this don't matter to us top players when playing the actual game. They should matter even less to you : please remember that all the above sections are much more important than this one.

**Corps inside a given tier are not ranked by strength.**

## - The Beloved (S tier)

**Credicor** : It belongs in a tier of its own. There's simply no situation in which Credicor is bad. It is always, at the very least, a decent choice. It is extremely consistent, is able to play more cards at start than average thanks to being rich in MC, and its ability to gain 4 rebates when spending 20+ cash in a single action is insanely strong. It applies to every card, including events, but most notably to SP greeneries, which is insane. It is even better with a higher number of players (since games tend to be shorter, SP greeneries are even better).

Standard Tech deserves a special mention here, as it makes SP greenery costs only 16 (before ocean rebates), which is ridiculously strong.

A Credicor with early Standard Tech focusing on terraforming can win consistently in 9-10 gens max, playing less than 15 cards total.

**Consistency** : Extremely high, as it can be picked with virtually any starting hand

**Favored strategy** : any, but leans towards terraforming or even total rush, due to getting rebates on many big space events, SP greeneries, and Standard Tech synergy.

**Favored map** : Tharsis due to Gardener and Landlord, but is good on any.

## - The Great (A tier)

**Ecoline** : we've been saying how good greeneries are and why terraforming strategies are consistent. It should be no surprise then to see Ecoline in this tier. Starting with 3 plants and

2 plants prod opens up some very strong plays at the game start, most notably with the Great Aquifer prelude on Tharsis/Elysium, which is unique to it. Its ability to convert for 7 is also stronger than it looks. The valuable plant tag is just icing on the cake.

It has its shortcomings though : it is cash poor and it **requires** some early heat production to work (something you should prioritize over anything else, including plant prod) Still, Ecoline surprisingly works with most hands and requires very little to be competitive.

**Consistency** : High

**Favored strategy** : Terraforming leaning towards total rush.

**Favored map** : Tharsis or Elysium. Significantly weaker on Hellas, where it is probably B tier at best.

**Interplanetary Cinematics** : This one is very strong for Engine builders. Its starting resources (30 MC and 20 steel) make it quite situational, but if you have any worthwhile building tag to play, then it is the richest of all corps (special mention to Advanced Alloys in starting hand, which is insane for this corp). And most building tags are best played early anyway, since a lot of them give mineral prod. Its ability, giving 2 rebates on every event played, is also very strong, especially combined with Media Group and/or Optimal Aerobraking, and global discounts.

**Consistency** : Medium (requires worthy building tags in starting hand), but extremely high ceiling

**Favored strategy** : Engine building

**Favored map** : None in particular.

**Vitor** : Another corp with a very high ceiling, Vitor leans heavily towards engine building with its ability giving 3 rebates on any card with VP on it. It synergizes extremely well with card draw and global discounts. Nothing is scarier than a Vitor with early Mars U, AI central, or Earth Cat. The innate tag is also very good. You shouldn't think too much about the free fund, since you have little control over it at this point : in most cases, Scientist/Miner is the way, unless your starting hand clearly says otherwise.

**Consistency** : Quite high, extremely high ceiling

**Favored strategy** : Engine building (the heavier the better). Can work midrange, but its ability is wasted when rushing.

**Favored maps** : Probably Hellas, but is good everywhere.

**Valley Trust** : Despite the low starting cash, getting a 3rd prelude more than makes up for it (a prelude being worth > 20 MC), and it allows for some very strong starts, though it can sometimes whiff (like, if your 3rd prelude choice is between Society Support, Early Settlement and Loan). The -2 on science tags is very good (especially on Research, costing only 7). The earth tag is also very decent. Not much else to say here.

**Consistency** : High

**Favored strategy** : Engine building or Midrange (depending on prelude combos)

**Favored map** : Tharsis due to Scientist, I guess, but nothing significant

**Point Luna** : Some of you may think I'm crazy for not having PL in the top tier. We've all been crushed by it drawing 8 cards in the first 3 generations and finding engine cornerstones early. While it is true that its ability is completely ridiculous, Point Luna is not very consistent, has low starting resources, and can crash and burn a non negligible amount of time

(especially if against a rushing setup) It's just that our mind is biased to remember games where we were playing it or against it, and everything fell perfectly into place.

**Consistency** : Medium-low. This corp feels like playing casino. Extremely high ceiling.

**Favored strategy** : Engine building (obviously)

**Favored map** : Probably Hellas, where it encounters less risk of being overwhelmed by a rush strat.

**Cheung Shing Mars** : CSM is just a strong overall corp with no real weakness, there's not much else to say. It has medium starting resources, but the 3 MC prod is very good, and so is the -2 on every building tag, which allows it to develop a strong engine earlier than most corps. I can hear some german guy whispering to me that this deserves to be a tier higher and share Credicor's throne. The madlad is trying to relight the flames of war between Germany and France, annihilating 80 years of cooperation.

**Consistency** : Very high

**Favored strategy** : midrange / engine building, but can be decent at terraforming too

**Favored map** : None, though it is a natural contender for Contractor award on Hellas.

#### - The Good (B tier)

**Helion**: Ah, Helion. A corporation often considered (wrongly) to be bad, especially a few years ago, even among top players. It is honestly a favorite of mine, and I've always been a stalwart defender of it. Helion is not especially rich, and its innate space tag doesn't have much value. What makes it decent is its starting heat, which we've stated before to be very important, and its ability. The starting 3 heat allows it to get 3 heat bumps in almost every game, usually more if you get a free heat prod from the temperature track, which is likely. Its ability is unique. Heat is usually more valuable than MC, so Helion shouldn't often be spending heat as MC until the temperature track has maxed. Still, it allows Helion to be playing those key cards even when lacking 1-3 MC for them, something that is unique to it. Also, compared to other corps, Helion can't go overboard with early heat prod : it is actually in its best interest to max the temperature track ASAP, so it can reinject its heat as MC every gen and gain an advantage compared to other corps, who are then stuck with useless heat, except for Thermalist purposes. It gets completely wrecked if the opponent has Heat Trappers in its starting hand, sadly.

**Consistency** : High, but low ceiling

**Favored strategy** : Terraforming

**Favored map** : None. It's usually a bad idea to fund Thermalist as Helion, since you want to be using heat as cash once temperature is maxed.

**Teractor** : Teractor is the richest corp of all aside from Interplanetary Cinematics and Phobolog... but it is much more flexible than them. Its -3 discount on earth tags is nice if you happen to find some key earth tags early (finding Earth Office makes it Super Teractor), otherwise it's just very average. It can be compared to Credicor (unfavorably) : 3 more starting cash, but a worse ability.

**Consistency** : High, as long as your starting hand isn't complete trash (in which case you'd have no use for its high starting cash).

**Favored strategy** : Any

**Favored maps** : None

**Mining Guild** : Good ol' Mining Guild is very hit or miss, but has the potential to be insane. If you start with 3 tiles or more playable from the start, it is excellent, there's no denying it, as getting free steel prod in the first two/three gens is always worth a lot. If you don't have tiles though, its ability is mostly useless, as you don't want to be SPing stuff just to get that prod (an SP ocean gen 1 on minerals isn't inefficient, but it takes too long to pay off and the opportunity cost is usually too high). It is also completely inept at rushing, which doesn't help its case. Still, MG's ceiling is very high if you get early tiles and card draw to find targets for your high steel prod.

**Consistency** : low, with a high ceiling

**Favored strategy** : Engine building (can't rush, really)

**Favored maps** : Tharsis by far, as it is a natural contender for Builder, Landlord, Miner, and to a lesser extent, Mayor (not that it usually matters). Especially bad on Elysium, where the mineral bonus placements are far from oceans; it probably belongs in tier C or D there.

- **The Average (C tier) - I considered fusing B and C tier together, as the gap between them is quite narrow.**

**Saturn Systems** : a decent, if situational tag, average starting cash, and a decent prod of 1MC (due to its ability triggering on itself) + 1 titanium prod. Saturn is naturally meant to go for a jovian strategy, but we've said before that it was quite situational. Still, a few jovians shall probably be played by either player, allowing Saturn to get noticeable MC prod in the long run. Can really shine with early jovians in the starting hand. Otherwise, it's just average (the jovian preludes being mediocre to plainly bad doesn't help its case). It's not as devastating to be hit by Asteroid Mining Consortium gen 1-2 as it is for other corps, if that's any consolation.

**Consistency** : Consistently average

**Favored strategy** : J-O-V-I-A-N-S and engine building.

**Favored maps** : Hellas, due to Rim Settler and Space Baron (could actually be considered B tier on Hellas)

**Tharsis Republic** : There's nothing with Tharsis, but it's rarely great in 2P, unless you like spamming SP cities and going to gen 14... which you shouldn't. We've stated before that early cities were bad, and Tharsis' ability isn't enough to make them good. Still, it gets the opportunity to secure the best city spot on a map, which has some value, and to get 1 MC prod in the process. It still pales in comparison to Cheung Shing, which has similar starting resources and the same innate tag.

Also, as Tharsis, Self Sufficient Settlement and Early Settlement preludes aren't as horrendous as they are with other corps. Oh, and don't think getting an early Immigrant City is a good reason for you to be spamming SP cities.

**Consistency** : Boringly average in all circumstances except in very long games (gen 12+), which tend to have a lot of cities and where its ability gets noticeable... which should happen very rarely

**Favored strategy** : Slightly leans towards terraforming maybe, due to ground presence being more valuable in short games.

**Favored map** : Tharsis, due to Mayor, Builder, and Landlord

**Robinson Industries** : Medium starting cash, no tag, but a good scaling ability for long games (don't use it anymore after gen 6). Interestingly enough, Robinson's ability heavily influences your choices of preludes, as you really don't want to be using it on MC prod or on heat prod. In an ideal situation, Robinson would gain titanium / steel prod all the way until gen 6, though you'll most likely be forced to get plant prod and energy prod at some point, which is fine : for 4 MC, it's still a very good deal.

**Consistency** : Quite high

**Favored strategy** : Engine building - in short games, Robinson is dreadful.

**Favored maps** : A natural contender for Miner (Tharsis) and Generalist (Elysium), but Hellas is more suited for engine builders, so it's hard to say.

## - The Mediocre (D tier)

**Inventrix** : Things are starting to get bad here. Still, we haven't hit rock bottom yet...

Inventrix is quite a poor corp, and its abilities are not as good in practice as they look on paper. The +2/-2 on requirements is really good for a gen 1 Methane from Titan, but that's honestly about it. Sure, you can expect it to also allow you to play Kelp, Fish, Birds, Bushes or Trees a gen earlier, should you find these, but that's just not good enough compared to the abilities of most other corps. Adaptation Technology allows Inventrix to get +4/-4 but is often too costly. Special Design is usually better and less of a commitment, being notably used for playing Kelp Farming with only 2 oceans down, which can happen as early as gen 1 (a game winning move on its own, but extremely rare). The 3 free cards as 1st action are a nice bonus, but it's a very unreliable ability, and Inventrix doesn't have enough starting cash to take advantage of them. At least it has an innate science tag, which is certainly good for playing AI Central/Quantum/Mass/AGT.

**Consistency** : Consistently mediocre, rarely shining with some very early Kelp Farming plays.

**Favored strategy** : None, but consider getting heat prod in order to play those temperature locked worthy plant cards (Bushes, Grass, Heather, Farming) a gen earlier.

**Favored map** : Tharsis, I guess, due to Planner and Scientist.

**Thorgate** : Thorgate is simply below average in the vast majority of situations. It starting with 48 MC is actually decent, and the -3 on energy tags is likely to save you about 9-12 cash over the course of the game... but that is simply not good enough compared to most other corporation abilities. Still, Thorgate having an innate power tag allows it to sometimes get hilariously good starts including Power Grid (a card that is almost always trash otherwise). Let's imagine a starting hand with Power Plant, Fusion Power, and Power Grid. You'd be ending gen 1 with 9 energy prod for a cost of 36. An excellent deal indeed, better than Soletta. It's important to note that Thorgate + Standard Tech synergizes well together, as an SP power costs only 5 then, compared to 11 for any other corp. If you happen to have that combo from the start, SPing power *en masse* very early on is actually good. As a last note, don't pick energy preludes (Supplier, Power Gen...) with Thorgate: as its energy is cheaper than for other corps, these preludes are often less valuable.

**Consistency** : Consistently subpar, with a very rare (and tempting) crazy energy engine showing up in a starting hand every and now and then

**Favored strategy** : None in particular.

**Favored map** : well suited for the Energizer milestone on Hellas. Also a good contender for Builder on Tharsis since many cards share a building + energy tag. Due to the same reasoning, is also a natural contender for Industrialist on Elysium.

#### - The Ugly (E tier)

**United Nation Mars Initiative** : UNMI's ability isn't bad on paper, being able to raise its TR for 3 cash as long as they've raised TR this gen already. The problem is that it requires UNMI to find a way to gain TR reliably, which is hard to do while being very poor at 40 starting cash (37 if you use its ability gen 1, which you should). Preludes help, but UNMI still needs to heavily invest very early in heat prod / plant prod, or even an o2 bumper. It's easier said than done though, and not activating its ability during 2 or 3 gens of a given game is quite a huge setback.

Overall, UNMI is sadly only playable with very specific hands, and can only go for a terraforming strat, as TR contributes more to overall score in short games... but it has nothing to help push the game forward, so it is completely reliant on cards, compared to Ecoline / Credicor / Helion.

**Consistency** : Very low, terrible 90% of the time. It can perform well if the starting hand is suitable... but this scenario rarely happens.

**Favored strategy** : Terraforming, despite having no built-in way to push any parameter.

**Favored map** : Tharsis (due to Terraformer milestone) and Elysium (due to Benefactor award)

**Phobolog** : 23 starting cash, and 10 titanium worth 4 MC each due to its unique ability. That could be 63 cash in an ideal scenario : slightly more than Teractor and Credicor. The problem is that such a scenario happens extremely rarely. You could argue there are only 3 big space cards worth playing early : Soletta, Io Mining, and Asteroid Mining, and a few medium cost ones, like Vesta Shipyard. Big space events like GIA and Deimos are best saved for mid/late game, unless you're facing Ecoline. Moreover, 23 starting MC means Phobolog can't afford to keep many cards from starting hand and likely won't be able to play anything gen 1 that isn't a space tag. Donation and Loan preludes can help with that, though.

**Consistency** : Very low, to the point where it is completely unpickable in most cases.

**Favored strategy** : Either jovians (with Asteroid Mining and/or Io Mining) or Terraforming (Phoboletta being surprisingly good when you have Soletta in the starting hand). If you don't have any of those cards, just do yourself a favor and pick the other corp, no matter what it is.

**Favored map** : Uhhh.

So, we're finally done here, having :

- 1 corp in S tier (Credicor)
- 6 corps in A tier (Ecoline, IC, Vitor, Valley Trust, Point Luna, CSM)
- 3 corps in B tier (Helion, Teractor, Mining Guild)
- 3 corps in C tier (Saturn, Tharsis, Robinson)
- 2 corps in D tier (Inventrix, Thorgate)
- 2 corps in E tier (Phobolog, UNMI).

As you can see, prelude corps are on average much better than base corps, with 4 of them being in A tier, and the worst being in C tier.

## 12 - Preludes evaluation

As in the above section, everything here is to be taken with a grain of salt, as it's heavily dependent on your corporation & starting hand. As we will see, there are a lot of not-so-good ones here, which means that Valley Trust can sometimes whiff a bit. As with corps, preludes aren't ranked by strength within a given tier.

### - The Beloved (S tier)

**Experimental Forest** : simply always good, often great, sometimes almost game winning if it draws you the best plant tags. Greeneries are good, as we've stated (especially on Tharsis due to Gardener milestone being highly valuable) and the targeted draw is insane : most plant tags are decent, and some can be game winners. Arctic Algae is the best early game, but finding Kelp, Bushes, Algae, Grass, Heather, or Trees is also very worthwhile and can orient your whole game plan. Definitely pick this if you have Nitrogen Rich Asteroid in your starting hand, as playing that card early is a win condition in itself. This prelude works very well with the next one (Great Aquifer), due to the power of ocean walking.

**Great Aquifer** : probably only deserves a spot in this tier on Tharsis or Elysium map (on the latter, the 2 central 2 plants oceans are strictly the best). GA allows Ecoline to convert as their first action and start ocean walking, as stated before. On Tharsis, it also allows Mining Guild to get 2 steel prod before the game even starts while grabbing 2 titanium and 2 steel. For other corps (on Tharsis, still) getting either 4 plants + 2 MC in rebates, or 2 cards + 2 titanium is excellent. Obviously a must-play if you have Kelp Farming in the starting hand. It is anti-synergistic with Arctic Algae though. As stated, significantly weaker on Hellas.

**Huge Asteroid** : Incredible value if you intend to go for a Terraforming strat. This is 3 immediate temperature bumps + a 4th gen 9 (due to you getting 1 free heat prod by playing Huge Asteroid). The -5 MC can hurt though, depending on your starting hand, but the gained 3 TR will quickly make up for it. Not advised if you know you'll be going for a heavy engine, so definitely a bit situational, but probably less than you'd expect. Ecoline's best friend.

### - The Great (A tier)

**UNMI Contractor** is a good, all-purpose prelude. 3 TR is very good (mostly for the MC prod, but 3 VP is high enough to be noticeable too). The earth tag is very decent. The random card draw is unreliable, but it's there and it has a bit of value, if not much. Overall, never a bad choice, though there can definitely be better ones if your hand clearly is leaning one way or the other.

**Allied Banks** is quite similar to UNMI Contractor (though slightly worse, I don't think it deserves to be in a lower tier) : same tag, 1 more MC prod, 3 more starting cash, 3 less VPs



and 1 less card. It's another prelude that is never bad, as everyone needs MC, and the earlier the better.

**Metal Rich Asteroid (MRA)** is an extremely good deal as long as you have use for (almost) all minerals, which can be worth as much as 20 MC (we'll leave Advanced Alloys out of this for the sake of simplicity). It fits into most setups, as Terraformers desperately want to bump temperature and have use for the titanium to play space events, and Engine builders enjoy early minerals to get their production going. It can be seen as a better Donation that pushes the game forward, at the cost of being less flexible.

**Supply Drop** has an insane potential, giving you as much as 25 MC of value (without Alloys) + 3 plants. For that, you need some good space and building tags, of course, so it's still a bit situational, even more so than MRA. And 3 plants, being an odd number, doesn't make converting easy. I usually prefer MRA, and I could see this being in the B tier. But the potential seems too high.

#### - The Good (B tier)

**Business Empire** is one many of you will think I'm crazy for putting so low. While above average, it is quite situational, compared to Allied Banks, which has a similar purpose. Business Empire leans more towards Engine building, and weakens your early game to make your late game stronger. It will catch up to Allied Banks by gen 5, and surpass it by gen 6. But that doesn't take into account the opportunity cost : Allied Banks has probably allowed you to play a card or two a gen earlier than Business Empire would have allowed you to. Considering Business Empire isn't exactly great with Terraforming setups, I can only consider it as definitely above average, but not truly amazing.

**Mohole** seems boring, but it is quite good for Terraforming setups when Huge Asteroid isn't being offered, and will get the job done for Ecoline and Helion (unless you get Heat Trapped, of course), being worth at least 3 heat bumps during the game (could be 4 if you get the free heat prod thanks to it).

**Polar Industries** is mostly a good prelude for terraforming setups, despite the 2 heat not being enough on its own. While this may seem contradictory with Mohole Excavation being two tiers lower, the free ocean gives 1 MC prod from TR, almost negating the steel prod advantage from Mohole Excavation, while also pushing the game forward, preparing ocean walking, and getting ocean placement bonuses. All things considered, I think it is a very decent prelude and I won't have it any lower.

**Aquifer Turbines** is very similar to Polar Industries. If you're rushing, Polar is better, as energy is delayed heat. If not, energy is more flexible of a resource, being useful for a bunch of strong early game cards, so Turbines has the edge. In a vacuum, Turbines is probably *slightly* better than Polar Industries to being more flexible and universally playable. The -3 MC hurts a bit though in the beginning (preventing this to be A tier), and can alter your gen 1 line in a significant way.

**Orbital Construction Yard (OCY)** is almost always decent to good. 4 titanium usually isn't hard to spend for most setups, and the titanium prod is good enough. Compare this to lo

Research Outpost, and it's pretty clear which one is better. Being vulnerable to AMC is my main gripe with this prelude.

**Acquired Space Agency** is one I know many would have put higher. Targeted draw is strong, and getting NRA, Deimos, GIA or even Asteroid Mining will make you happy. Still, it sometimes whiffs by giving you, say, Space Mirrors and Toll Station. Still a good prelude, that sometimes feels awesome. But I would advise choosing it when already having a decent titanium target in hand.

**Supplier** is not exactly impressive, but isn't bad at all for Engine builders, as long as they have use for the early energy prod (Hackers, once again, usually does not qualify), and 4 steel will certainly help them play these energy consuming cards. If not, this is obviously a weak choice. A situational prelude that doesn't disappoint when it's good, and one that I would pick often compared to Martian Industries, which is similar in purpose.

**Power Generation** : We're not playing with Colonies, so how come I'm valuing this so high ? Well, mainly for one reason : if you wish to be terraforming heavily and you get neither Huge Asteroid nor Mohole, Power Gen will still be giving you 3 temperature bumps by gen 10, saving you from the excruciating pain of SPing asteroids inefficiently. A decent choice for Ecoline. Also good for engine builders who start with a ton of valuable early energy consuming cards (and you know what I'm going to say about Hackers, so just for this one time, I won't say it), mostly Building Industries, Electro Cat, Dev Center. Still, if you want to put this in C tier, I'll forgive you for it, as it's hardly groundbreaking.

**Dome Farming** has a good building tag, and an excellent plant tag. The 2 MC prod is enough to be noticeable during the game, but the sole plant prod leaves something to be desired, and leaves your plants vulnerable to asteroids and viruses. This prelude has been slept upon for a long time, but is really above average in many cases, even being excellent when you have NRA in starting hand.

#### - The Average (C tier)

**Metals Company** being ranked as low can be seen as a bit harsh, but... I hate this prelude. I loathe it. I abhor it. Every time I'm playing this, I find myself praying to the Old Gods that I won't be hit by AMC or Great Escarpment Consortium gen 1. Sometimes I'm hit by both, and the only thing I can do is weep in silence. I will still pick it if the other options are clearly worse, but it *always* makes me feel anxious. Yes, even when I have Advanced Alloys. If you want this in B tier, you can, but please... take this prelude away from me. I'm nauseating already.

**Donation** is very bland, but it is also very flexible and gets the job done when you're a poor corp with a lot of stuff to keep from starting hand and to play gen 1. You likely will never be excited to play this, and it's obviously worse than ASA, Supply Drop or MRA if you have the right targets for them, but I don't think it deserves to be lower. Obviously, it is bad if your hand is trash and you have nothing to play.

**Mining Operations** is certainly decent to great for an Engine builder who has a decent hand with a lot of building tags. Just don't pick this when heavily terraforming, it won't be doing

much and you'll feel forced to buy building tags from the draft to use your steel. It's decent to good in a large number of scenarios, but a bit of a letdown when it's being offered and your hand is rush oriented.

**Smelting Plant** is too often average, sometimes good to great, and very rarely bad. Its main problem is that it can weaken 1-2 of your greeneries by taking points from the o2 track you may have gotten anyway (that's still 2 MC prod due to TR though), if o2 maxes first. Other times, o2 will be lagging and this actually saves you from SPing two greeneries lategame, which is excellent. So if you're, say, Helion with a ton of heat prod in the starting hand but very few plant tags, then this becomes a very strong prelude that plays towards your win condition. Also useful for playing Methane from Titan, and for an early Insects if you happen to have early plant tags. Usually don't bother if you have no immediate use for the steel. Could be worthy of B tier, as some top players feel this deserves to be higher.

**Martian Industries** is one I had much trouble deciding between C and D tier. It is generally underwhelming and doesn't do enough, but I still find it significantly better than, say, Nitrogen Shipment (which also gives some starting cash), so here we are. Only take it when Engine building AND you have a use for the 6 cash gen 1 or 2. Excellent with Electro Catapult in starting hand, as it satisfies all its requirements and Electro Cat is crazily good gen 1.

**Biolab** is good if you like gambling. It's a very unreliable prelude that is as likely to whiff as to help you. On average, you can expect it to give you 1 good card. The science tag is good, the sole plant prod less so, as your plants are likely to be blown up by an asteroid before you get a greenery out of this. Try not to pick this with a poor corp.

**Research Network** is obviously similar to Biolab, but it has an even better tag (wild) and a different prod (MC instead of plant). 1 MC prod is arguably better than 1 plant prod, unless you have other plant prod cards to complement Biolab. Anyways, very similar preludes. I like Research Network a bit more than Biolab due to the sheer value of the wild tag (which can really shine with milestones), and it's one of those that I had trouble placing. No doubt it's almost B tier worthy.

#### - The Mediocre (D tier)

**Biosphere Support** would have been decent without the -1 MC prod. Here, it's just a bit too punishing for Terraformers. Seriously, compare this to Experimental Forest : same tag, but Forest gets 2 more cash prod compared to Biosphere, while Biosphere takes 4(!) generations - if no asteroids and viruses - to get the greenery Forest gets from the get go. And that's without taking the targeted plant draw into account. It's not even remotely close. Still, it can be okay if you have NRA in your starting hand.

**Biofuels** are similarly underwhelming. The 2 plants are quite likely to get blown up, and the microbe tag is largely irrelevant, except for Worms (not often great) and Advanced Ecosystems (often great but you'd be unlucky not to find another decent microbe tag). The one plant prod and one energy prod just aren't doing enough.

**Io Research Outpost** is a bit better than Galilean Mining (which is also in this tier, as you'll see), but not good enough to be considered average. The random card draw is unreliable, the jovian tag nothing special. The titanium prod is okay, as is the science tag. Overall, nothing exciting here. If you're Saturn, this is better and is a tier higher.

**Self Sufficient Settlement** (SSS) is simply not good. 2 MC prod doesn't cut it, and the early city is mostly worthless, though it will certainly be worth a handful of points later, and allows to secure a good spot on the map. Slightly better if you're Tharsis Republic, definitely.

**Early Settlement** is arguably even worse than SSS, since a single plant prod doesn't do much and odds are you'll get hit by an asteroid before being able to convert those plants. A bit better if you're Tharsis Republic or have another way of getting early plant prod.

**Nitrogen Shipment** is very underwhelming, despite TR on preludes being good. The sole plant prod doesn't have much value on its own (see Early Settlement), but the 5 cash can sometimes help you play something a gen earlier. Not completely terrible in every case, but you should never be happy to pick this.

**Mohole Excavation** is a much worse Huge Asteroid, and also worse than Mohole. It will only get you 2 temperature bumps during the game (gen 4 and 8) and gives you steel prod, which is not a flexible resource (and makes you vulnerable to Great Escarpment Consortium, which would be catastrophic with such a bad prelude). Still, if your corp & hand leans towards terraforming, it's okay to pick it if nothing better is available, as heat is always valuable early.

**Ecology Experts** is simply too unreliable. If you have Farming or Kelp in your starting hand, it is excellent. With Trees, it's average, and with anything else, it's just bad (yes, including Fish, Birds and Livestock). Most of the time, this is just a waste of a Prelude spot, so I can't have it higher.

**Galilean Mining** is just bad. If you like that prelude, please reconsider after comparing it to Allied Banks or Business Empire. The titanium prod lacks flexibility but is decent, as long as you don't get hit by AMC. The jovian tag is marginally useful, but it encourages you to be playing jovs (and going overboard in titanium production, most likely). The -5 starting MC is where it hurts the most, as it will take 3 gens to generate a noticeable profit. Contrary to some top players, I don't think this prelude deserves a place in the bottom of the barrel, as it's still correct to pick it sometimes. But in most cases, this prelude is just too slow, lacking flexibility, and has a noticeable opportunity cost.

**Loan** is just a worse Donation in most cases. There are few occasions where 9 MC, compared to Donation, will make a difference, but the -2 MC prod really hurts in the long run. Still the correct pick in very rare cases, though.

**Eccentric Sponsors** is also a worse donation, giving basically +4 MC compared to it but being *much* more conditional. It is a fine prelude when it is playable... which rarely happens, as really good targets pretty much only include Io Mining, Asteroid Mining, Soletta, Earth Catapult (despite losing 2 cash in value for the latter). It often is a waste of a prelude space, like Ecology Experts.

## - The Ugly (E tier)

**Society Support** is by far the worst, and the only one deserving to be here. The -1 cash prod could be changed to +1 and it still wouldn't be great, only decent. 1 plant prod by itself just doesn't do much, and neither does 1 heat prod (though you could argue it's 2 heat prod due to the energy becoming heat). I have taken it maybe twice in the last thousand games, and I think only as Ecoline with a rush hand, when no other prelude fits that strategy. It is simply laughably awful.

Okay, we're done with preludes. As you can see, terraforming preludes and ones that give immediate resources to play your hand are seen much more favorably than preludes that grant production over the course of the game. That should come as no surprise if you've read the previous sections.

## 13 - The importance of correct sequencing, or why you shouldn't freely give those free ocean and temperature away

We're now coming to the more technical parts of the guide. Sequencing is extremely important in this game, and honestly not my strongest, as I'm sure most of my top ranked friends would agree.

Still, here's what I can tell you.

First, let's talk about 1 actioning vs 2 actioning.

- You should always play 2 actions whenever possible. It's a gentleman's agreement to do so. One actioning turns the game into a boring slog if both players do it. And if you start one actioning, I will as well, as your opponent, as not doing it would give you an "unfair" advantage. Then, nothing would be gained for either of us, but time would surely be lost. It's especially important not to do it if you're going second in a given generation and your opponent, who went first, has played two actions : even if he starts one actioning, he will never be able to reclaim that "unfair" advantage you gained.
- If you really need to one action for whatever reason, type it in chat so your opponent doesn't miss it and can one action in return.
- If you can't do otherwise, one actioning is fine to avoid Energy Tapping or Power Supply Consortium (if you play, say, Power Plant as your second action, you encounter the risk of being Tapp'd by the opponent before using squid energy).

With that out of the way, we'll now try to prioritize actions during a given generation:

- 1) All high priority actions, notably including (in no particular order as it's too game dependent) :
  - a) Funding a contested milestone / award before the opponent, or playing cards that just will allow you to (e.g, if you're going first, have 5 building tags played and the opponent has 6, you should play 2 building tags as first actions to get to 7 played if you wish to get Builder and have yet an 8th waiting in hand).
  - b) Converting your plants into greenery. This includes the "SP greenery + convert".
  - c) Getting the free bumps / resources on the o<sub>2</sub> / temperature tracks
  - d) Blowing up the opponent's plants if he can convert them or is close to.
  - e) Taking the last bumps of a parameter to prevent the opponent from taking them
- 2) Drawing cards. As they can change what your plans are for this gen, it's better to draw early
- 3) "Stall actions" : selling steel with Electro Cat, taking a microbe on Tardigrades, an animal on Small Animals, etc.
- 4) Using your resources to play most cards from hand
- 5) Playing terraforming cards (unless they fit in the "high priority actions" in 1) and heat bumping.

The reason for terraforming as late as possible is that you don't want to enable good stuff for your opponent too early. If 4 oceans are played and you have Ice Asteroid, playing it early will allow them to play Kelp this gen. But if you play your Ice Asteroid late, they may not have enough cash to play Kelp anymore, and will be forced to delay it or to sell stuff from their hand. Same reasoning applies to every requirement locked card.

Be especially careful about the free temperature bump on the o<sub>2</sub> track, and the free ocean bump on the temperature track: they are worth quite a lot of money, and if you don't get them, your opponent will. Each TR your opponent gets on a track is a TR you're not getting, effectively creating a 2 point swing compared to the other scenario where you would have secured it.

When the o<sub>2</sub> is at 6, getting the free temp on the o<sub>2</sub> track in 2 actions by SPing + converting is almost always worth it (playing Strip Mine usually isn't).

As for the free ocean at 0°, it can be secured by a number of cards : Deimos gives 3 bumps, Nuke Zone/Big Asteroid/GIA/Lava Flows give 2 bumps each.

What you should conclude from this is that it's very dangerous to get the temperature to -8° (or higher, you madman/girl). A combination of Deimos + heat bump, or Nuke Zone + Lava Flows is then enough to get that free ocean. This sadly means that Trees are less useful than they should, often getting delayed by fear of giving the free ocean away.

## 14 - The final 2 generations : how to not throw away the game at the last minute

As the game is nearing its end, you should ask yourself which gen it's likely to finish, and what's your interest in ending now or a gen later (and also what's your opponent's best interest). Who has the best scaling ? Is the one with the best scaling likely to win if it goes for another gen ? Or maybe they're winning already ? Do you have the ability to end on your own ? Should you ? Can the opponent end by themselves ? Should you help them, by securing those precious TR, or shouldn't you ?

All those questions are very game dependent, but are absolutely crucial. There's no easy answer here, and even top players make blunders in the final two gens sometimes.

If you're slightly behind by ~5 points, but the opponent is Ecoline with 2 cards in hand, and no heat while the temp track is lagging, it's usually bad to Deimos, even if it destroys eight plants and gives you 3 TR he won't get. Instead, let them SP asteroids inefficiently. If they do, you can play your hand while they have burnt all their cash. If they don't, let it go for another gen if you need to, to make sure you'll outscale them.

The reverse is true when o2 is the lagging parameter : if the opponent is getting outscaled and needs to end ASAP to have a chance of winning, you shouldn't be playing Mangrove (as awesome as it is), you'd only be helping them.

At this point of the game, I *strongly* advise you to be keeping track of both players' scores.

## 15 - Tips on how to recover when behind

Let's be clear here : some games are unwinnable. I have lost many games against opponents with an ELO 500 lower than mine. Everytime, they had a much superior setup than mine. Most of the time, it was completely impossible for me to win. But sometimes, I would have won if I hadn't made a few small mistakes.

You'll be no different.

When you're facing a monster such as Ecoline with 8 plant prod and 10 heat prod by gen 4, or IC with Earth Cat, Alloys, Mars U, AI Central all played by gen 1 with the help of some preludes, all you can do is pray.

In those circumstances, I pray to the Great Cthulhu, as He has shown to be the most likely to answer my pleas (though the price to pay is heavy). You can pray to a less tentacular god of your choosing, but I can't guarantee results.

In less extreme circumstances, not all is lost. Opponents who are far ahead play more relaxed. That applies to everyone, even 2.1k players. They make small mistakes. While you, having bet with your dog that you would win this particular game, can't afford to lose - or at least not give it your all.

The following can be confusing and is not worth reading until you've reached ~1900 ELO :

Such situations often require thinking outside the box, especially when facing a good opponent. As an example, in a somewhat recent game against Hamilton, a 2100 player, I was getting wrecked. He was Standard Tech Creditor (a strong setup) and had the superior terraforming setup by far. I had 0 plant prod and I got my first tile gen 11... which is not something you want to be happening under any circumstance. He had been ahead all game long despite me funding two milestones. I was Teractor with a janky engine setup that bloomed late, no plant tag ever, and I quickly figured that if I wanted any chance of winning, I would have to make awkward plays. I funded the first award (scientist) gen 2, as it was becoming clear he would fund Landlord soon and I had no chance of stealing it. To steal points from a quickly maxing o2 track, I played Water Splitting Plant early (usually a very mediocre card). I quickly funded the 2nd award for 14 (Miner), as again, him funding Landlord would have been too much for me to recover from.

In the end, he never found the opportunity to fund Landlord, and I funded a risky banker in the 10th gen I knew he could have stolen with the right cards. I ended up barely winning.

He made a few mistakes, notably being distracted by a gen 3 Earth Cat he should never have bought (we already talked about that earlier in the guide), and letting me take the last few TR from the temperature track.

Anyway, what you should get from this rather long and convoluted example is that when behind against strong opposition, conventional methods usually won't work : you'll have to make risky plays that wouldn't be advisable in normal circumstances (like, here, playing WSP, or a very risky banker fund). Often, such high risk/medium reward moves won't save you from losing. They most likely will even backfire and make you lose even more. But if that's your only shot, you have to take it, even if it has only a 10% chance of winning, while hoping the opponent makes mistakes. And sometimes he will. Truth is, I should never have won that game if Hamilton didn't screw it up.

I feel like this section is a bit too abstract and not very clear. I'm sorry. It's probably not much help, and only applies to >2000 ELO players.

## 16 - Drafting considerations



# 17 - Starting hand examples, evaluation and discussion.

I'll be showing you 20 starting hands in this section. Yes, it is a lot. But making a big mistake before the game even starts has huge consequences (some games between two equally good players are almost decided already before the game even begins, depending on starting hand), so it is important to learn how to get better at evaluating a starting hand and learn to identify common traps.

My teaching method here will be the following. I make a screenshot of a starting hand, including corps & preludes options (using an external site that will be linked later). You will be trying, on your own, using everything we've said in the previous sections, to find the best line, while also detailing your gen 1 plays. Take your time. Then, you'll be free to take a look at the spoilers section I have written, where you will be finding my line (or two lines if I think another is worth it), reasoning, and evaluation of the hand on a scale /10.

Of these 20 starting hands, 10 will be "straightforward" and 10 will be "tricky". Try asking yourself which one it is, and why.

**Don't skip this section. It is extremely important. If you get bored by it, still try playing the part with at least 10 of the 20 hands I'm providing. If you *really* get bored by it, play the part for 5 and look at my answers for the rest of them.**

**Note : for the sake of simplicity, the map here will always be Tharsis, as it's the default and most played.**

- **Hand 1:**
  - Teractor or Ecoline
  - Martian Industries / Nitrogen Shipment / Supplier / Society Support
  - Big Asteroid, Ganymede Colony, Fusion Power, Energy Tapping, Grass, Worms, Zeppelins, Artificial Lake, Power Plant, Flooding

**Ghaleon's line :** Pick Ecoline, with Supplier and Nitrogen Shipment. Buy 6 cards : Big Asteroid, Fusion Power, Power Plant, Energy Tapping, Flooding, Grass.

Starting resources : 18 MC +5 from Nitro Shipment, + 4 steel from Supplier

Gen 1, play Power Plant + Fusion Power using 10 MC + 4 steel. Also play Tapping if applicable to opponent. Gen 2, open with Flooding on 2 plants (elbow ocean, central-east), and convert northeast of it to start oceanwalking.

**Reasoning :** This is a Terraforming hand, clearly. Being able to get 6 or 7 energy prod gen 1 is very strong as delayed heat, and this is also a rather good hand for the usually subpar Nitrogen Shipment to start with 3 plant prod. There's nothing for Teractor here, we don't play jovians, and the other cards (Zeppelins, Worms, Artificial Lake) are almost never good cards to keep from starting hand.

**Evaluation : 7/10, straightforward.** This hand needs very little to be performing very well : we're only looking to buy more plant tags and more space events here. Hilariously enough, this is probably one of the best case I've seen for Society Support, but I still wouldn't pick it.

- **Hand 2 :**

- Thorgate or Inventrix
- Allied Banks, Dome Farming, Supplier, Acquired Space Agency
- Capital, Asteroid, Regolith Eaters, Lake Marineris, Building Industries, Sponsors, Large Convoy, Insects, Fuel Factory, AI Central

**Ghaleon's line :** Inventrix, with Allied Banks and Supplier. Buy 7 cards (everything except Capital, Fuel Factory, Regolith Eaters). Starting resources : 24 MC +3 from Allied Banks, +4 steel from Supplier, + 3 random cards. Gen 1, play Sponsors + Building Industries, then pass (unless you found something worthwhile from Inventrix's random draws).

**Reasoning :** Weird hand, but a good engine one obviously, which is surprising considering our corp choices. Inventrix's science tag gives it the edge over Thorgate, in order to play AI central early, hopefully gen 3 or so. All preludes are decent, but we need money since we'll have a ton of cards in hand and a lot to do, and we need energy for Building Industries and AI, so Banks and Supplier are clearly above the rest. Marineris is very often a keep in starting hand, and is even better as Inventrix. Large Convoy and Asteroid are always worth keeping, but having 3 oceans in hand as a heavy engine setup is a bit much, so considering not keeping Marineris isn't crazy. Insects are *always* worth keeping. Building Industries gen 1 with Supplier is excellent. Regolith Eaters are usually too expensive for a mediocre effect, despite granting us a science tag we need for AI. It is playable here and could honestly be worth the gamble, but I still personally wouldn't. As we really need to save an energy prod for AI, don't keep Fuel Factory here, you may regret it. Capital would be good as an option during later drafts with us having early steel prod, but is not worth buying here for 3 cash: with our draw, we'll find other steel targets.

**Evaluation : 7/10, tricky.** A very decent heavy engine hand for Inventrix, with good early development. If we can get AI down by gen 3-4 (hopefully with some help from Inventrix's draws), things will be looking good. The Regolith and Lake Marineris choices definitely are very hard here.

- **Hand 3**

- Creditor or Teractor
- Eco Experts, Aquifer Turbines, Biofuels, Orbital Construction Yard
- Underground Detonations, Livestock, Ice Cap Melting, Solar Power, Mars University, Decomposers, Ants, Nuclear Power, Rad Suits, Security Fleet

**Ghaleon's line :** Creditor with Aquifer Turbines on cards and Orbital Construction Yard. Buy 4/5 cards: Livestock, Mars U, Decomposers, Nuclear Power (+ a hypothetical 1 random one as a Mars U cycle if you wish, in case both draws from Turbines are good and are better played gen 1). Starting resources : 42 -3 MC (due to Turbines), + 1 ti prod + 4 ti.

**Reasoning :** Creditor > Teractor. Preludes are self explanatory since Biofuels is subpar and Eco Experts is horrible here. Mars U is always a keep and could completely save this hand. I'd keep Livestock (something I usually advise against) since we don't have much to do with this hand. Nuclear Power is not a very good card, but getting 3 energy prod early (5 combined with Turbines prelude) is worth the hit on MC prod... and again, we have nothing

else to do. Ice Cap is a good card but not from the starting hand as it's often not playable. Solar Power is never a buy at start. Ants do nothing when we're the ones with Decomposers. Rad Suits aren't rad. Security Fleet is NOT a good target for our OCY prelude titanium, despite us not having another. Underground Detonations is terrible, but if we weren't starting with 5 energy prod with Mars U, this still would likely be the 1/1000 game where I'd consider playing it out of desperation.

**Evaluation : 4/10, straightforward.** Much weaker than other hands covered so far. Being forced into playing OCY without any worthwhile target is especially sad. Being Credicor gives this hand a +1, having Mars U gives it another +1. Without those, this hand is likely a 2/10. The 5 energy prod is nice for heat control (but the -2 on MC prod is noticeable) and combined with Credicor's ability to get rebates on SP greeneries, our ability to push the game forward is still not that bad. If we're lucky, Mars U will bail us out of this.

#### - Hand 4



**Ghaleon's line :** Credicor with Metal Rich Asteroid and Supply Drop. Keep 6 cards: Arctic Algae, Archaebacteria, Earth Catapult, Mohole Area, Standard Tech, Io Mining Industries. Starting resources : 39 MC + 12 steel + 7 titanium. Gen 1, play Mohole Area for steel on 2 cards (or 2 ti), get 4 MC rebates due to Credi's ability. Then play Io Mining Industries. You still have enough for Arctic Algae. All this development is more important than playing Earth Catapult gen 1, so it gets delayed a bit.

**Reasoning:** Cheung Shing is a very good corp, but Credicor is way too strong here with us having a bunch of very high cost cards. Supply Drop and MRA are by far the best with this hand, as we need to develop Mohole Area and Io ASAP. We then play Standard Tech and we're in an insanely strong position, as our SP greeneries are very efficient.

**Evaluation: 8/10.** Not beatable except by the absolute nuts (whether Terraforming or Engine building).

## - Hand 5



**Ghaleon's line :** Helion, with Loan and Ecological Experts (Decomposers). Buy 5 cards (Decomposers, Protected Valley, Sponsors, Nitrogen Rich Asteroid, Solar Wind Power). Use Eco-Experts on Decomposers (see reasoning before calling me crazy), play Sponsors.

**Reasoning:** This is one of the worst preludes selections I've ever seen. Basically our win condition here is playing NRA as soon as possible. Despite being bad, Eco Experts is still better than society support and Galilean Mining for that reason, even if we waste it on Decomposers. Picking Galilean here instead of Eco Experts would mean probably delaying NRA by 2-3 gens, which can be absolutely disastrous. If we had a good prelude option, of course I'd pick it over Eco Experts, but that's not the case here.

## 18 - About Venus Next

## 19 - Differences regarding number of players

## 20 - Frequently Asked Questions

- **Why the constant hate on Hackers ?**

Because it is (usually) complete dogshit.

- **Come on... let's be serious for a moment. This is a 40 MC swing over the course of the game ! That's insane !**

I am being serious. You are right that playing Hackers gen 1 of a 10 gens game will be +18 MC for you and -18 MC for the opponent. From this +18 MC, you though have to remove :

- 6 MC (3+3) to be able to buy and play it gen 1.
- The cost of that energy production, which can be as high as 11 MC if you SP for it (madness !), but more likely about 8 MC on average
- The cost of the -1 VP (hard to quantify, between 3 and 5 MC)
- The opportunity cost of playing Hackers gen 1 if it delays playing anything else in the next few gens

...Doesn't feel that good of a deal anymore, right ? And that's by playing the thing gen 1, at the earliest point possible !

Basically, Hackers will start generating a net profit *for you* in the lategame.

Of course there's still the -18 MC for the opponent. You may think this is worth 3 to 5 MC on average. That would be true if the -18 MC happened all at once, as with Sabotage. But it being gradual means the opponent will simply adapt to it by slightly altering his game plans. Sure, sometimes it will make a noticeable difference. Sometimes, playing it on an Ecoline who has played gen 1 Lunar Beam will make them go -4 in MC and will ultimately prevent them from ending the game when they would win. This is a dream scenario however, and it simply doesn't happen enough to warrant playing the card in the first place.

Let's be honest : I think top players have been *slightly* overhating on Hackers over the years, and that playing Hackers gen 1 is usually fine. But try to understand us : we've seen so many players SP power into Hackers gen 5-6 that it has become a meme at this point.

To be clear, Hackers is playable *only* early game, *only* with Supplier/Power Gen prelude or other early energy prod card (mostly Giant Space Mirror), and *only* if you lack other energy targets (and if you do, you shouldn't have picked those preludes to begin with). Other than that, it is useful in 1 game in a 1000 for a surprise Banker steal, which is hilarious when it happens. You can do yourself a favor and stop thinking this card exists : it won't hurt your winrate. Then, when you've become a better player, you can learn to recognize situations

where it's decent, and begin playing it sporadically again. But first, get rid of the bad habit of always playing it !

- **You've been praising plants all game long. Can you rank the plant prod cards ?**

Sure. It goes roughly something like :

- Top tier, potentially game deciding : NRA / Kelp Farming / Insects / Arctic Algae (if < 3 oceans)
- Strong : Mangrove / Algae / Bushes / Trees / Farming (the latter usually isn't great last gen, but it can still be good with the bio combo)
- Still decent to good : Grass / Heather / Lichen / Noctis Farming / Adapted Lichen.
- Usually not worth it : Tundra Farming (still fine for endgame scoring if you got it from a random draw and you have nothing better to do, just don't play it for development)

I'm sure the above is debatable to some extent, but it should be good enough to be used.

Designed Microorganisms are hard to rate since they have no plant tag and a huge opportunity cost early on. They're usually worth playing gen 1-2 though, but are a hard pass after gen 3, unless you *really* need the science tag. Farming's value changes tremendously depending on the number of gens remaining. If you can manage to play it 2 gens before the end of the game, it is very strong. But that requires the temperature track to fly. Finally, Protected Valley is also hard to rate, despite being a decent to very good card, and worth playing most of the time.

Learn to love plant tags. They're quite a high priority draft, with NRA, Insects and the bio-combo being so strong.

- **You haven't talked much about the energy consuming o2 bumpers (Ore Processor, Ironworks, Steelworks, Water Splitting Plant). How good are they ?**

You're right, I haven't, so I'll do it here, as they're worth mentioning.

To put it simply, they are *very* situational, but can be game winning in a few circumstances. Their main issue is that they're directly competing with greeneries to push the o2 track (and we've said time and again how good greeneries are) and that the energy you spend on them won't be converting to heat.

By playing those o2 bumpers, you're basically choosing to give up some control on the temperature track, to gain more control of the o2 track.

The typical situation in which they're good is when the following criterias are met :

- You're heavily engine building
- Your opponent has a lot of control on the o2 track due to plant production
- O2 is likely to max first, but heat is lagging
- You have little to no control of the o2 due to having no plant prod
- You have a way to get cheap energy to keep them activated.

If the following conditions are met, those o2 bumpers are good, as they allow you to steal points from the o2 track when you don't want to be pushing heat anyways.

There is another niche scenario where they are good :

- You're the Terraforming player
- It's still early game
- Your opponent has a very strong engine that will likely explode and outscale you
- You have a ton of heat already (e.g, 15 + prod), so o2 is likely going to be the lagging parameter
- Therefore, you want to be ending ASAP, and the o2 bumpers will help you do that faster than SP greeneries.

And finally, the 3rd scenario is....

- You're playing UNMI and wish to use them to have a reliable activation of your unique ability every gen.

Overall, they're not worth buying in most cases, and recognizing when they're good requires some skill and experience.

- **The guide is way too long. Can you do some TL; DR version ? It would be appreciated.**

Yes, I know there's info all over the place and it can be hard to find a specific thing. There's stuff I've only mentioned quickly, since this guide is long enough as it is. If I had to give a few tips to a 1500-1600 player, they would be :

- **Terraform more**
- **Buy much fewer cards**
- **Play less cities and more greeneries**
- **Don't overextend for milestones you can't get naturally**
- **Calculate your gen 1 plays**
- **Take your time during drafting phases**
- **Stop blaming your losses on bad luck and ask yourself what were all the small and big mistakes you've made**
- **Stop playing Hackers**
- **???**
- **Profit**

## **21 - Ranking and commenting every card in the game**

## 22- Useful resources

Hodgepodge's discord server (join us !):

Hodgepodge's youtube server (see videos from 2022 onwards, our knowledge of the game has evolved, and videos in 2021 and older are a bit outdated):

Threadpacifist's youtube channel:

## 23 - Special Thanks

My first thanks goes to you, dear reader. Thank you for bearing with me and making it this far. Soon, you will be reaping the rewards of this long read.

Remember all those bullies in middle school ? I surely do. Time to call them back. Show them how far you've come. But don't flex. That glint in your eyes should be enough to make them cower in fear and beg for forgiveness. You're a **Terraformer**, now.

A very special thanks to my German friend and longtime copilot, Der Maister, for your criticism and witty comebacks. This guide would be much worse without you. Almost every commentary of yours has improved it in some way.

My other special thanks go to people from hodge's discord community. You have made the journey on Mars a fantastic experience in the past few years. A journey I would have aborted much sooner without you. Despite our disagreements and endless debates, I enjoy the company of you all. This notably includes, but is not limited to :

alt217, Anthracite, aspirin, Bennyaka, Dialectic, HighlanderKG (you deserve a special mention, my 0.3k ELO friend, for bringing me, and many others, to the Discord), Hamilton, hodgepodge, jay, kanzen, klomppi, Kulik, Laurent, lisiacz, M3i, Mola\_Ram, parker, PropagandaPanda, Random Ronny, SiddarthVenkatesh, SomeGlitch, Stout Apple, Szybek, TAMPONGFABRIKEN, tedler, the\_RETURN, ThreadPacifist, villagazdaszag

Still, if your name isn't there, I kindly suggest you ask yourself what you've done to me in the past.

That's it, folks ! We're officially DONE ! Phew.