

WAR GAME



REAIM

Responsible AI in the Military domain Summit

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REAIM WAR GAME

Explore AI in the
military domain

How to read this magazine?

When reading this magazine, focus on the parts relevant to the role and faction (team) you have been assigned to.

Social media

To represent social media, we will use a Whatsapp group for each game. Joining the Whatsapp group is not mandatory. Scan the right QR code to join the Whatsapp of your game.

Social media REAIM WG 1

WhatsApp-groep



Social Media REAIM WG 2

WhatsApp-groep



Scan for video tutorial


<https://youtu.be/tBYQ7XILNvA>

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Disclaimer

This war game is developed for educational purposes for the Responsible Artificial Intelligence in the Military Domain (REAIM) Summit. All content developed for the war game is fictionalized and derived from widely available open-source information. If any content of the war game bares any resemblance or similarity with reality or current affairs, it is purely coincidental.

The war game is developed by Ivo de Nooijer and Diederik Stolk (Goldsworthy, Stolk& Associates) with support from Defensity College at the behest of the Netherlands Ministry of Foreign Affairs and Ministry of Defence.

About the War Game

Get ready to play!

Why, What & How

The object of the game is to have players better understand what AI can and cannot do in the military domain and consider the impact of potential use.

The wargame uses a fictional scenario. It presents a parallel universe with fictitious countries and other types of non-state actors, i.e. companies, insurgents or criminal groups (collectively factions). The game consists of three separate but parallel theaters where factions engage with each other.

The players (students) represent factions. Each faction consists of one or more teams. The teams represent part(s) of the countries, companies, or another non-state actors. Each faction is given one an objective to achieve. The objective(s) are asymmetric and hidden to other teams. Each faction's objectives are described in the Team Briefing.

Planning is important. Each turn, participants must determine the actions they want to take to further their team's objective. Dividing tasks between team members is vital. It is strongly advised to do so. However, to ensure that each contributes to the faction's

objective(s), it is beneficial to have a shared strategy and understanding. Finding a workable balance between communication and planning is key.

The wargame is facilitated by a team that handles the interactions and outcomes of the choices, actions and arguments of the players. It includes relevant experts. It adjudicates and resolves issues. After the wargame there is a debrief.

1. Rules

The game is played in accordance to the rules described below and summarized in the Player Aid (released on day of the war game).

1.a. Factions and teams

The players represent the following factions during the game:

- Republic of Korbash (KOR) (state)
- Kingdom of Idaska (IDA) (state)
- International non-governmental organizations (INGO)
- Schiller Inc. (company)
- ALGOR (company)
- Los ventiquattros (Los 24s) (narco cartel)
- Arctic people's liberation front (APLF) (insurgents)

- 4L4K4Z4M (cyber criminals)

Factions, parties, entities, or actors not represented by players, are represented by game control. This includes the government of Sago.

1.b. Game Control

The war game is facilitated by a team of facilitators, see final chapter magazine.

1.c. Areas of operations

The game is played on three boards, representing three different areas, one depicting cyberspace and two depicting fictional geographic locations. The different environments impact the opportunities and challenges of using AI, as well as provide a setting that impacts the outcome of actions or engagements. The areas are:

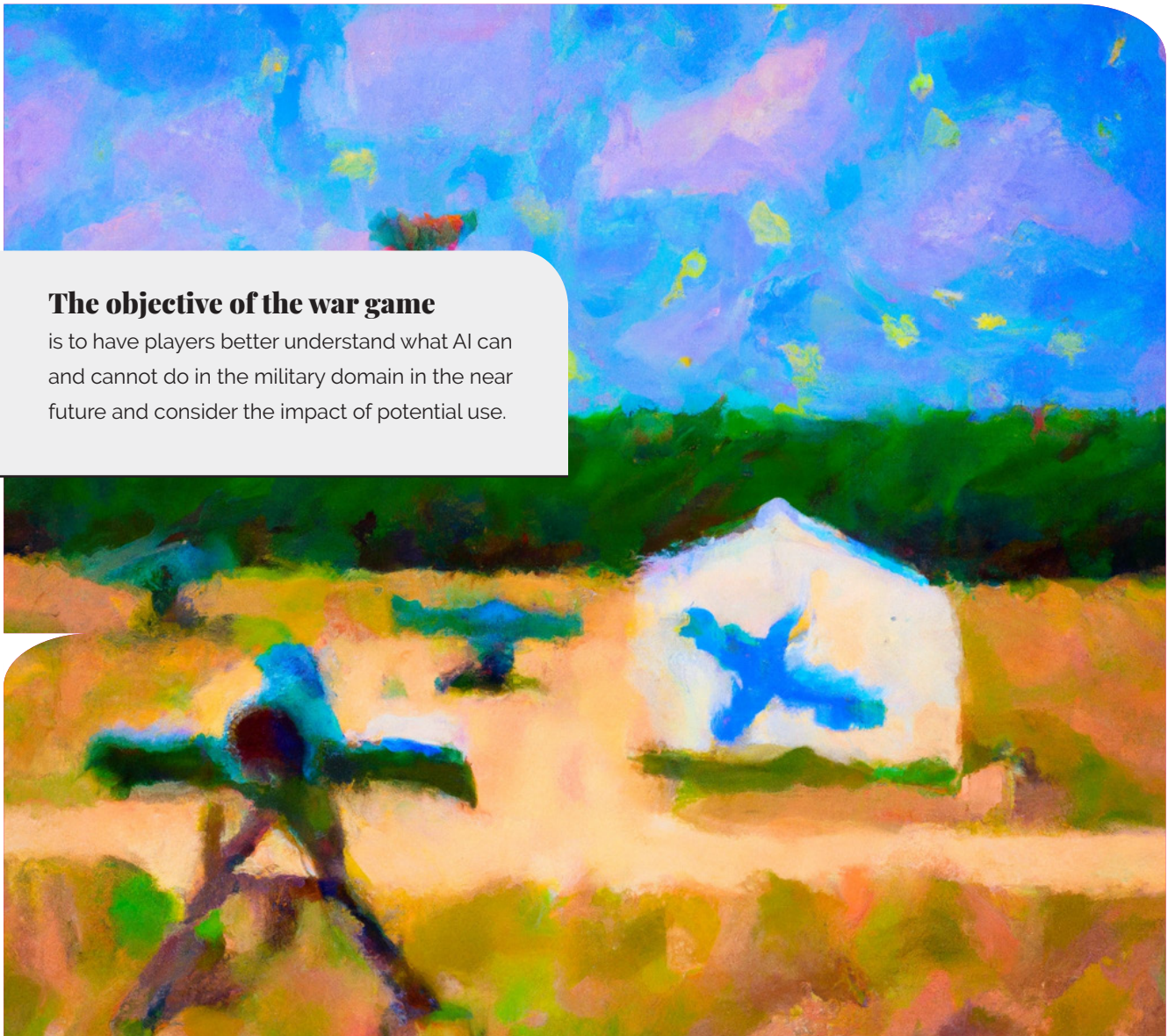
- Sago, a mega city
- New Guigo, a resource rich arctic region
- Cyberspace, representing all regions and the two countries)

1.d. Stability and support

All of the factions are impacted by societal stability. It is a vital metric indicating societal resilience and prosperity. It is tracked for Sago and New Guigo and for the Republic of Korbash and the Kingdom of Idaska. Societal stability represents peace, stable government and safety and security. It is increased, for example, by orderly elections, low crime and competent government. Societal instability leads to decreased stability. It can be the result of, for example, violent crime, rampant inflation, armed insurrection or wide spread labor unrest.

The objective of the war game

is to have players better understand what AI can and cannot do in the military domain in the near future and consider the impact of potential use.



In Sago and New Guigo the support is tracked for the Republic of Korbash, the Kingdom of Idaska, and the local faction(s), i.e. Los 24s and the APLF respectively. This indicates the perception of the local population of these factions in relation to each other in the given area. It expresses the trust and confidence in which faction should be (de facto) in charge.

Stability and support are updated at the end of each turn by Game Control based on the events of the turn. The assessment and key events are announced during the start of the turn by Game Control during turn two and three.

2. Turns

The wargame is played in three turns. Each turn represents approximately 6 to 12 months. Each turn consists of two phases, the first phase is the planning phase, the second phase is the execution phase. In between these phases Game Control synchronizes and reviews orders and (starting turn two) announces the current situation to the players. After each turn the game simulates a time jump of several years to explain development of new AI Capabilities and new hardware and network components. This enables the game to explore the impact of evolving AI Capabilities and their potential use.

2.a. Planning phase

The Planning phase starts by teams collecting their units and/or income. During the planning phase teams can carry out the following activities:

- strategize and plan actions
- engage Diplomacy and Trade
- perform R&D

2.a.i Strategy and Planning

A key task for each faction is to determine its strategy and plan actions per area, either as a faction or per team (each state actor is one faction but consists of four teams). This may include determining goals for actions in one or more areas and deciding on actions to be executed in the subsequent execution phase.

2.a.II Diplomacy and Trade

This activity revolves around making arrangements with other factions. As part of diplomatic arrangements teams can trade funds, grant access to AI capabilities, and/or enter into agreements about the game state, e.g. agree on certain actions to be taken or not taken during the coming action phase. This may, for example, include joint operations or agreeing to separate spheres of influence.

Granting access AI capabilities requires a person of both factions involved in the transaction to go to Game Control. The faction that grants access brings its AI capability card. The recipient only brings a card if it has access to a lower level AI capability in the same function group. Game control then validates access for the recipient to the new AI capability.

Investment by a company is abstracted to investment cards that can be bought by companies at Game Control. Investments act as units and are placed on the board before the end of the planning phase. Their associated actions are resolved during the Execution phase. The investment cards represent substantial company investments, distinct from ongoing activities. The success or failure of the investment is determined during execution phase. Investments cannot be traded and only be used by the company that acquired them.

2.a.III Research & Development

The R&D activity focuses on the development of new AI capabilities. The R&D activity is available to states and companies. New AI capabilities can be either a new level of an AI capability already owned or the first level of an



AI capability previously unavailable. In turn 1 only AI capabilities of level I can be developed, in turn 2 AI Capabilities of level I and II can be developed and in turn 3 AI capabilities of level I, II and III can be developed. . Please note that you need to have access to level I of an AI capability before you can develop level II of that capability.

Development is abstracted to a die roll by Game Control. A faction can develop an AI Capability by paying Game Control to carry out an R&D project. Project costs are provided on the Player Aid. Per project a die is rolled by Game Control to determine the success of the development. This success rate is between 40% and 80%. If the AI Capability is already developed by another faction, this adds 10%/faction. If the AI capability is researched by two or more factions jointly, it adds 10% (once). In any event the chance of success is capped at 80%.

For the INGO, Los 24s, APLF, and 4L4K4Z4M the R&D task is unavailable, they must acquire AI capabilities through other means.

2.b. Quick Sync

The Planning phase ends with the following activities taking place (simultaneously):

1. Teams place units (including investments) in New Guigo and Sago. The type and origin of each unit is visible. Any AI capabilities are noted on the flip side of the unit (and remain hidden until used). Please note that the type of unit determines the maximum number of capabilities it can have.
2. Each faction (except INGO, AFLP and Los 24s) submits up to two written orders for cyberspace.
3. Game Control synchronize the orders and status between each of the areas. They assess each of the submitted cyberspace orders for impact on the other area(s).

3.a. Execution phase

The execution phase starts with a short update by the game's facilitator per area. This highlights key developments and sets the scene. The execution of actions differs in cyberspace from the other two areas of operations.

3.a.I Orders

Orders are activities by a faction or one

or more of its units. Orders are steps taken by a faction to further its aims in the specific area. An order represents a set of concerted efforts aimed at a specific goal that can be achieved within the scope of a game round. The faction giving the order is responsible for its clarity, scope and other aspects. A company, for example, can order an investment to develop new business, resource exploitation or entering a new market. A state, for example, can announce it is entering into an international treaty, a new policy, or order units to occupy certain terrain.

In cyberspace the areas represented on both other maps can be affected, as well as the core areas of both Korbash and Idaska. For each of the territories critical sectors or the network can be targeted. In addition, the society of both Korbash and Idaska can be targeted to increase or decrease stability. Societal stability is represented with a color coded track from green to red, green representing stability, red representing instability.

3.a.II New Guigo & Sago

Orders are executed in two rounds, during each of these each team gives one order. The order is announced and described by the initiator. The facilitator grants that faction the opportunity to provide arguments why it should succeed or what potential risks have been mitigated. In this description the initiator can refer to AI capabilities, arrangements with other factions, local circumstances, prior events or other factors. If the use of AI capabilities are claimed, the card needs to be flipped to demonstrate that the AI capabilities were indeed on the unit.

As part of the resolution the other teams have the opportunity to provide

arguments why an action is likely to succeed or fail. A faction may refer to one or more AI capabilities deployed on its own unit(s). If these are part of a unit that has not yet activated, the unit is flipped to disclose the AI capability as well. A faction is not obligated to use (and disclose) any AI capability.

Orders are executed in the following order:

1. KOR
2. IDA
3. Schiller
4. ALGOR
5. INGO
6. Non-state actor (i.e. APLF in New Guigo, Los24s in Sago)

Once every team has executed an order a new round of orders starts. Following the same order. During this second round, each faction can execute a second order. Note that units are not placed on the map or removed from the map between the two rounds orders. Units may be moved as a result of the execution of an order or its outcome, including removal.

3.a.III Cyberspace

Orders in cyberspace are submitted in writing at the end of the planning phase. Orders that have not been submitted on time are not considered. To submit an order, a team fills out an order sheet and hands it over to the facilitator. Incomplete or illegible order sheets can be submitted. Please note that all orders are executed at the submitting team's risk. Misread or misunderstood orders represent real life miscommunication or poor planning and its effects. Empty order sheets can be handed in but will not be executed. Orders are executed anonymously. Although critical failures or active protection measures may impact anonymity. The facilitator team reviews

all orders at the start of the phase, clusters and structures them and announce them by cluster at the table one by one. Teams can then discuss the order before it is resolved.

3.b. End of Turn

Changes to the map in New Guigo & Sago are permanent (e.g. successful investments, acquired territory). Remaining units are returned to their faction.

In cyberspace the board is reset and all offensive, defensive or other measures are removed.

During this phase Game Control and the facilitators review the board state and events and determine impact on support and stability. In addition, they determine whether events impact next turn's income and availability of units for the various factions. Societal stability or instability is changed based on the development of the turn. If it is not impacted by events it moves half-way from its position at the end of the Execution phase towards equilibrium.

4.a. Resolution

The likelihood of success of an order (including combat) or R&D is determined by a die roll of a 10-sided die. Lower is better, a roll of '0' equates to 10 or 100% and is the worst possible roll.

After an order is announced it is resolved as follows:

1. Facilitators summarizes the situation and arguments provided.
2. Players provide arguments why the order should succeed or fail.
3. Facilitator decides the target number (chance of success in 10% increments).

4. Faction that gave the order rolls the die (in cyberspace: the facilitator).

If the roll is equal to or lower than the target number the order is executed successfully. If the roll is higher than the target number the order fails.

Additionally, the facilitator determines the difference between the target number and the roll. Lower than the set number is advantageous to the faction giving the order, higher is disadvantageous. Each point below the target number increases the chance of beneficial side effects and/or their impact. Similarly, each point over the target number is more detrimental to the faction the increases the chance of negative side effects. This also means that if the chance of success is high, the likelihood of negative side effects is small and the chance of positive side effects and/or their impact increases.

4.b. Critical miss

However, if a '0' is rolled, the person that rolled it rolls the die again, on a 6 or higher (including '0'), a critical miss occurs. This introduces (additional) effects next to the failure of the action. The specifics are determined and narrated by the Facilitator. It may include a fatal error when using the AI capability or some other mishap or unintended

consequence. The consequences are usually to the detriment of the faction that performed the action.

All the outcomes, the positive or negative side effects, including those related to a critical miss, are narrated by the facilitator

4.c. Combat resolution

Combat resolution uses a similar approach in the event of a (violent) confrontation between two or more units on the board (i.e. not in cyberspace). Please note that the critical failure rule applies as well. One die roll resolves the combat for all of the units involved in the action.

There are two key differences. The first is the effect of rolling the target number, in combat the result is a stalemate and the units remain locked in combat. Additionally, the outcomes associated with each differential compared to the target number are set, and given in the table below. In short, combat offers no certainties. This means that in combat even if the likelihood of success is 100%, rolling '0' will not dislodge the enemy force.

4.d. Research & Development

The likelihood of success of R&D is described under the header for the R&D activity. The die roll does not use

differentials and there are no critical failures in R&D. R&D is successful or not.

5. Funds

Funds represent financial and other resources used to perform R&D or make investments (a unit type). Funds are received on a turn-by-turn basis, factions can influence the amount of funds they receive by achieving their goals or progressing towards achieving their objective. Depending on the type of faction, this may reflect a change in the division of resources or increasing income of the faction. The state actors' income reflects budgetary allocation mechanisms while the income of the non-state actors reflects the success of their activities, e.g. commercial or otherwise.

Funds play a critical role for the companies in the game. Funds are a key metric for the success of both. It enables the acquisition of new AI capabilities.. In addition, funds enable the company to invest. Investments are a type of unit only available to the companies. These units represent the massed resources (people, capital, raw materials) to develop or expand commercial activities.

Combat resolution confrontation matrix

Differential	≤-3	-2	-1	target	+1	+2	≥ +3
Outcome	D DES	D OOC	D RET	-	A RET	A OOC	A DES

D or A identifies Defender or Attacker respectively.

DES: destroyed, the unit is removed from the board and returned to Game Control.

OOC: out of combat, the unit is removed from the board and returned to the owner. It can be used or redeployed during the next turn.

RET: retreated, the unit remains on the board and active but moves away from the confrontation. It may fight in the same and subsequent turns. The retreat is determined by the facilitator.

6. Units

A unit is a group of people, multiple vehicles, an aircraft, drone swarm, or other physical platform that can be equipped with AI capabilities. A Unit includes crews and/or relevant support to deploy and operate the unit (e.g. cars come with people, drones come with teams of operators, aircraft come with pilots and ground crew). The type of unit determines how many capabilities can be equipped. Units come in the following types, for each the AI capability limit and some examples are given (see table below)

Please note that once a unit has been equipped with certain capabilities, it retains these. Although additional capabilities may be added if the unit did not already reached its maximum number.

A faction receives units in accordance with their respective reinforcement schedule, as set out in their Team Briefing. There are two exceptions, the results of the previous turn may lead to more or less units being made available, determined by Game Control. This represents for example troops being held back to maintain order and stability.

Companies can acquire investments during the Planning phase. Investments cannot engage in combat.

8. Lawful weapons

For the game the following definition of lawful weapons applies, everything that is not unlawful, is lawful. Unlawful weapons under international law are those weapons that:

- are indiscriminate by nature;
- cause unnecessary suffering or superfluous injury; and
- cause harmful effects that are incapable of being controlled.

AI itself is not a weapon per se and the presence or absence of AI does not determine its lawfulness of a weapon. Each faction will have a faction specific attitude towards international law and its willingness to adhere to it.

Next to the weapon itself, the manner in which the weapon is deployed or used may lead to legal issues under international law. The use of a weapon needs to be proportional, collateral damage must not be disproportionate in comparison to the military necessity of using it. The use of the weapon should avoid unnecessary suffering, in civilians and combatants alike. And, especially relevant for autonomous weapons, it needs to be able to discriminate combatants from non-combatants. The non-combatants should not be harmed. Non-combatants includes combatants out of combat (i.e. incapacitated, taken prisoner or surrendering).



Both the weapon's characteristics and its (potential) use can be topic of discussion, including for example the manner in which decisions are made to deploy, engage etc., and mechanisms to control or redress undesired outcomes.

Unit type	Description	Max # AI Cap/unit
Tactical missiles	Medium size missiles, cruise missile (expended when used)	2
Ship	Destroyer, container vessel, aircraft carrier, ferry	4
Boats	Small ships, cutter, speedboat, yacht	2
People	platoon, gang, department, band of insurgents (20-40 people)	1
Soft skinned vehicles	Trucks, cars, other (wheeled) vehicles mostly for civilian use	2
Armored vehicles	Tank, infantry fighting vehicle, armored car	3
Aircraft	Fighter, bomber, jetliner, helicopter	2
Investment (companies only)	Business development, resource exploitation or other investments	4

War game settings

Areas of operations

Where

There are three areas of operations in which teams will explore the use of artificial intelligence within the military domain.

1. City State of Sago

Roughly 20 million people live in the city state of Sago. Known for its geographical location, blossoming high-tech economy and its skilled workforce, many countries seek to expand their influence in Sago.

With its two harbours, the international airport and extensive road and rail network, Sago is well tapped into the global economy. However, there is a great societal divide in Sago. The wealth gap is significant. Especially, among the irregular migrants living in Sago lower north district.

A variety of international non-governmental organisations (INGOs) are active in Sago. They seek to positively affect the city state's society as it's

suffering from inequality, narco crime and necessities, such as education & healthcare.

Los24s control all crime in the greater Sago metropolis. The narco cartel seeks to extend its influence in all aspects of Sago's society. The narco cartel's stronghold is in Sago's lower north neighbourhoods district. In this area, no activity gets unnoticed and requires the cartel's approval.

INGOs, Korbash and Idaska accuse Los24s of fuelling the global drug epidemic through their activities, which include large scale transportation of drugs, human trafficking and to a lesser extend cybercrime. INGOs cannot operate in the North side and the industrial districts of Sago without Los 24s tacit approval.

Both Schiller Inc. and ALGOR operate in the sprawling metropolis, vying to expand market share and gain customers.

Korbash (KOR) and Idaska (IDA) seek to increase their influence over Sago for various reasons. With its blossoming high-tech economy and conve-





nient geographical location, the city state would be a valuable ally for both parties. However, thus far Sago has not succumbed to their advances, as they reap the benefit of their courtships, Sago firmly remains unaligned.

Another concern for both states is the prevalence of narcocartels in Sago, most notably **Los 24s**. Their territorial foothold coupled with mass poverty in Sago, has made the metropolis a haven in the international drug trade. The money and violence that come with this role has destabilised society, especially for poor and uneducated people, leading a steady irregular migration flow to KOR over the past 20 years.

A major **international non-governmental organisation (INGO)** is active in Sago. It seeks to impact the city state's society as it's suffers from mass poverty, narco crime and basic necessities, such as education & healthcare.

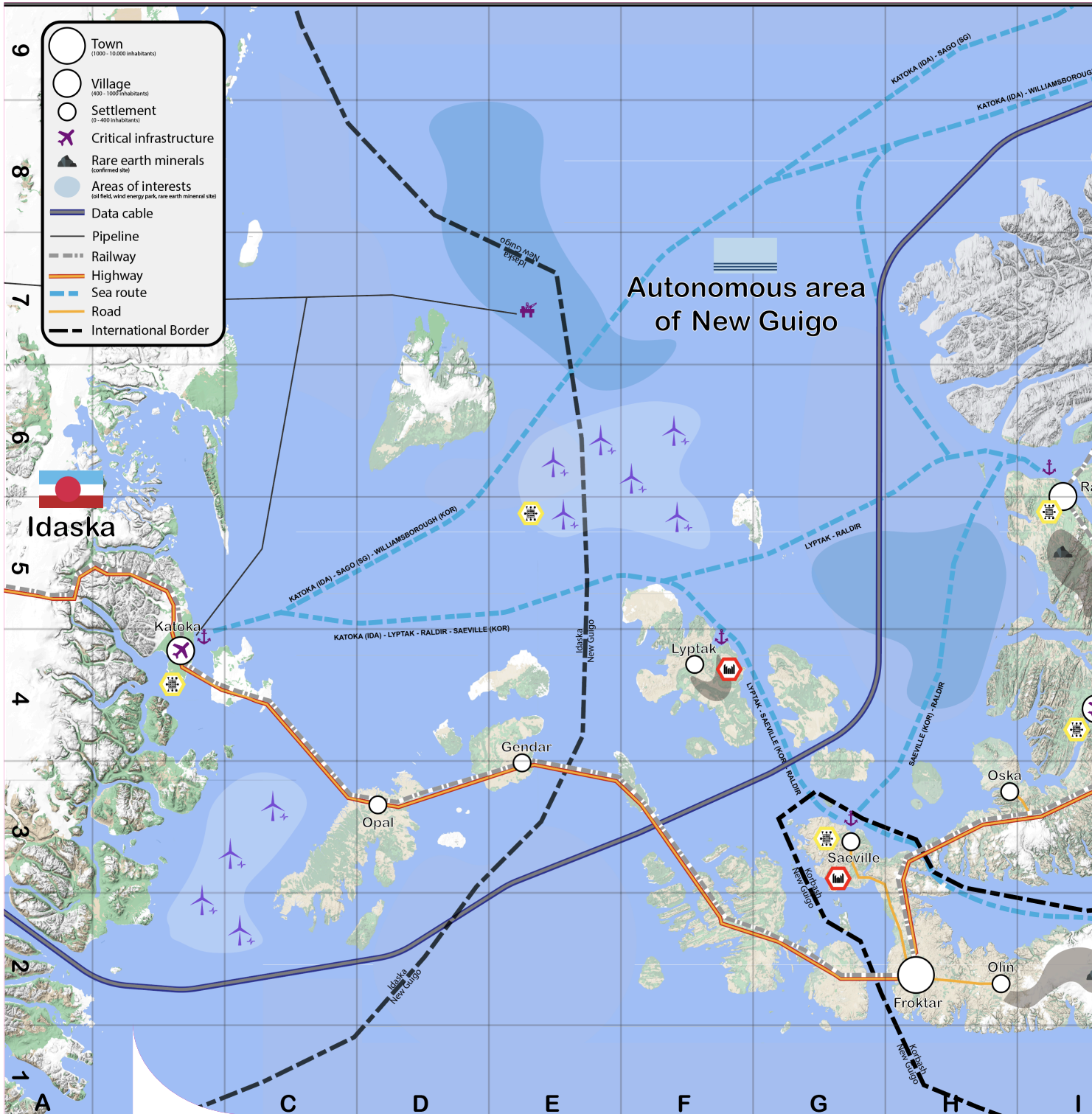
The INGO seeks to utilize AI to improve service delivery to Sagans in needs, in hard-to-reach places, such as Sago's Lower North District.

Two multinational corporations are active in Sago: **Schiller Inc.** and **ALGOR**. Schiller Inc. has a relatively small presence in Sago, which it seeks to expand. Its current activities are predominantly logistics focused: the transport of cargo to and from the city. Schiller Inc. stores and processes various extracted natural resources, e.g. oil, in Sago's harbour. Schiller extensively uses Sago's airport.

ALGOR's products are used by people from all walks of life in Sago. ALGOR has heavily invested in Sago's technology infrastructure. For instance the company has its own 5g network and electric vehicle charging stations. The OneGo app is used by most Sagans for a range of purposes

ranging from shopping to transmitting remittances abroad, meeting up with friends to venting opinions on its social media called XGram. It is said you can connect to anyone and arrange anything using the free OneGo app. ALGOR collects all data and shares it with paying customers for marketing and research purposes.

Both multinationals are worried about Los24s abusing their services and products.



2. Arctic Region of New Guigo

Arctic region of New Guigo is rich in natural resources and wildlife. Up to the early 1900s, no country claimed any part of the arctics. But with dawn of industrialization, Idaska and Korbash started to annex land.

New Guigo is roughly a third of the size it was before 1902. New Guigans, the indigenous people of New Guigo, ac-

cuse both countries of seeking to exile them from their native lands.

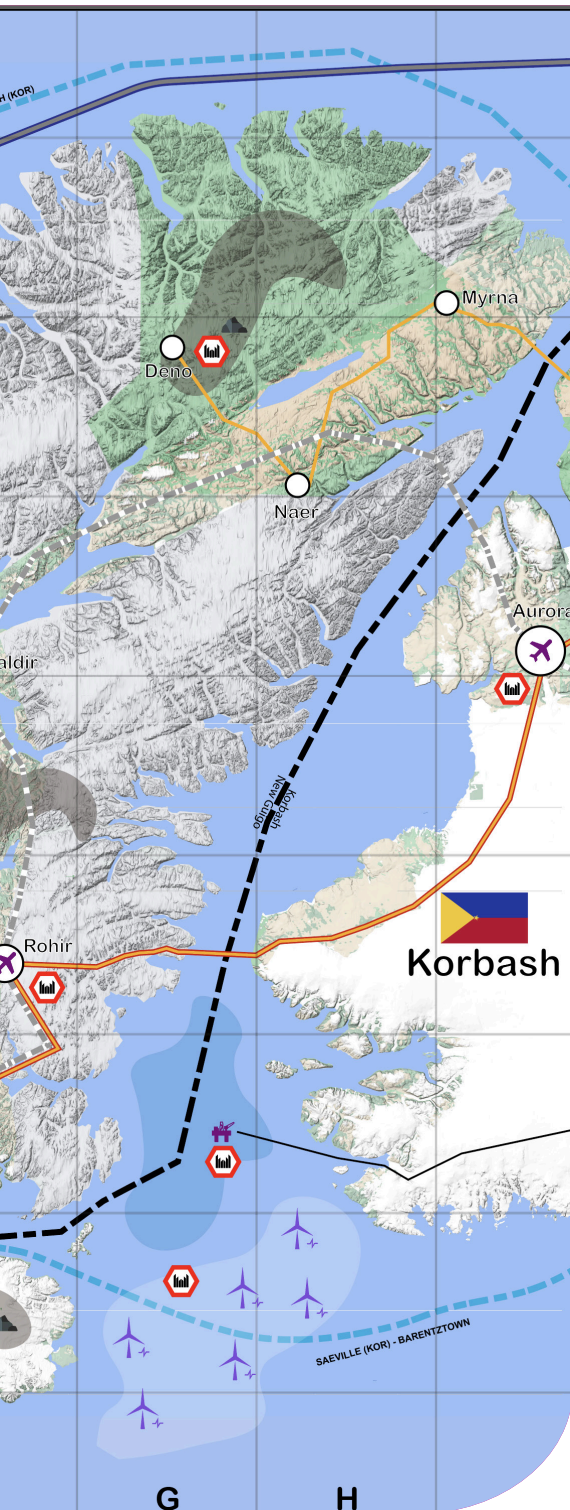
There are various important pipelines, windfarms and harbours and sea passageways in the region, which are maintained and/or operated by Schiller Inc.

Korbash (KOR) and **Idaska (IDA)** strive to exert their influence across their

arctic borders into the autonomous region of New Guigo.

With both nations claiming control, there have been many confrontations between the two states.

A major **international non-governmental organisation (INGO)** is active in the arctics. They are concerned



about the degradation of the environment and the displacement of indigenous peoples.

The arctics are severely affected by global warming and mass pollution caused by states and multinational companies, such as Schiller Inc. and to a lesser extent ALGOR. Indigenous peoples in the arctics are often displaced in the pursuit of natural re-

sources and mineral riches. Within the INGO community there is a growing concern about the militarization of the region.

The **Arctic People's Liberation Front (APLF)** seeks to protect the human rights of all indigenous people living in the Arctic. It operates across the arctic region of New Guigo, claiming to represent indigenous people in New Guigo's autonomous area, as well as those living in the arctic regions of Idaska and Korbash.

The APLF as well as INGOs accuse KOR of destroying precious arctic nature and wildlife, as well as displacing indigenous peoples in New Guigo.

ALGOR and **Schiller Inc.** are both present in the arctic region. Each actor seeks to expand influence in arctic region to satisfy a global thirst for natural resources and capitalize on geography (trading routes, pipelines and data lines of communication).

ALGOR has a relatively small presence on New Guigo. Some personnel are there to service local companies with their IT needs, others are doing research for the development of new technologies.

Schiller Inc. provides many services in the arctic region, among which are: cargo transport, gas and oil extraction, the development & maintenance of pipelines, road and rail works. In light of the deteriorating security situation in the Arctics, due to APLF activity, Schiller Inc. has its own private security company in the region to protect its sites.

INGOs are critical of Schiller Inc. work in the region. They routinely accuse Schiller Inc. of pollution through negligence. Their advocacy efforts have swayed international public opinion against the company.



3. Cyberspace

This interactive domain made up of digital networks that is used to store, modify and communicate information, is vast and ever expanding. It includes the internet, but also the other information systems that support businesses, infrastructure and services. The cyberspace encompasses all forms of networked, digital activities; this includes the content of, and actions conducted through digital networks.

Like in our world, in this parallel universe, everything is interconnected on a global level, ranging from consumer electronics, such as smartphones and smart fridges, to nuclear reactors, data farms and hospitals.

Actors active in cyberspace

To a certain extent, all actors are active in this space. Whether it is for nefarious or legitimate purposes, each actor has a vested interest and is vying for influence.

Korbash (KOR) and **Idaska (IDA)** are key players in the global cyber domain. Each nation seeks to expand its influence over this domain. They do not shy away from using offensive cyber capabilities if provoked. With regards to AI, both countries seek to gain access to new capabilities through collaborating with other actors in this domain.

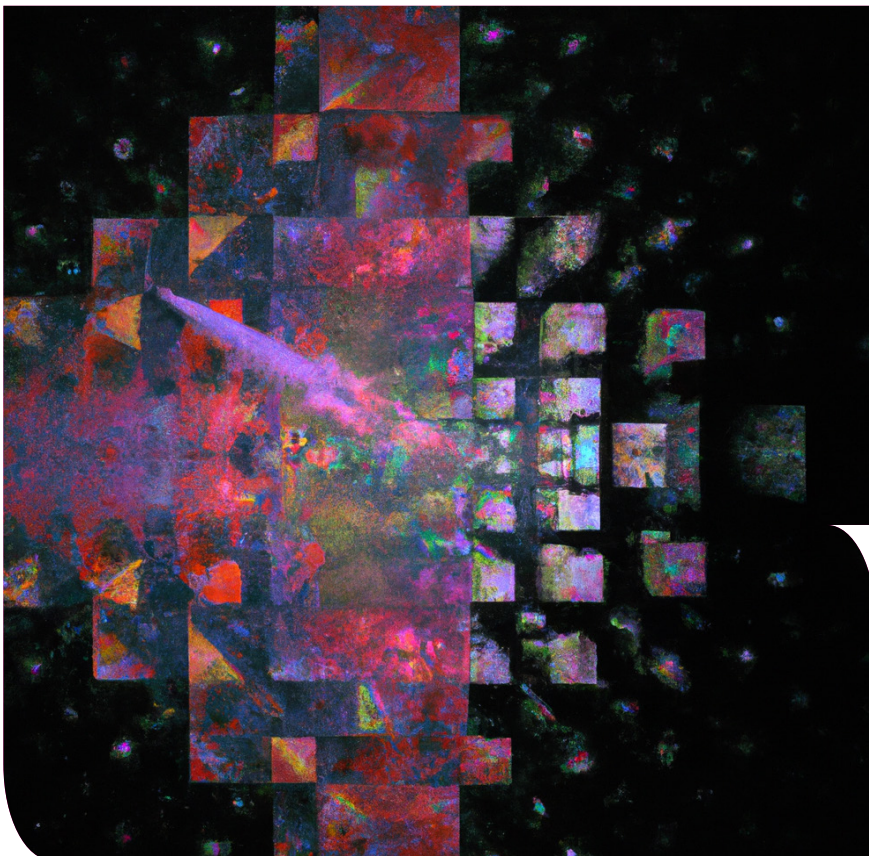
Using their cyber capabilities smartly,

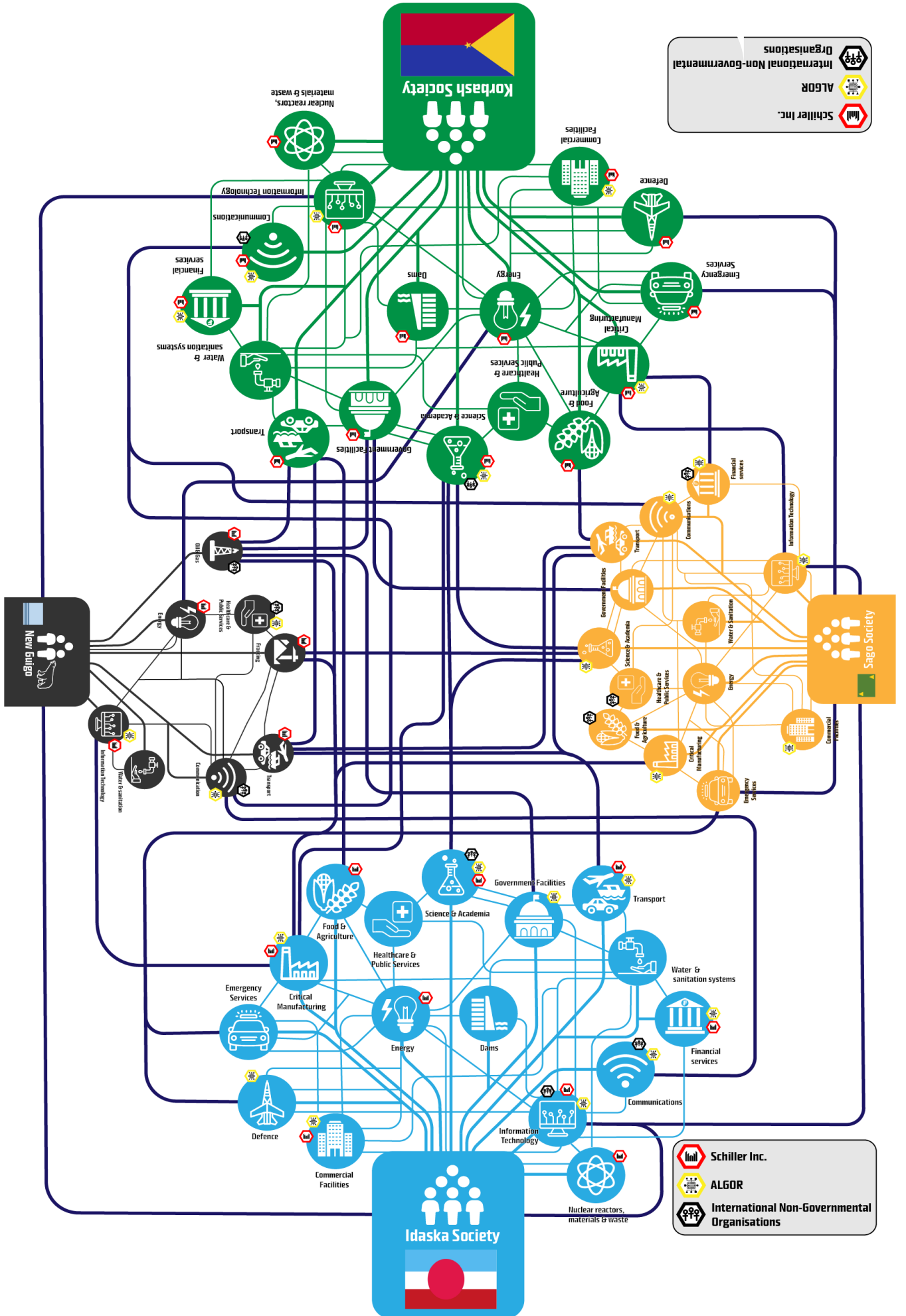
KOR and IDA aim to support their operations in the arctics and Sago.

Within the **international governmental organisations (INGO)**, community there is a growing concern about the militarization of artificial intelligence. Although, INGOs are more of a passive player in the cyber domain, they seek to collaborate with other actors to ensure their activities are not disrupted by cyber attacks.

Both **Schiller Inc.** and **ALGOR** have a significant presence in the cyber domain. Schiller Inc. provides services ranging from securing datafarms up to encryption services and cloud security. ALGOR is a large tech company providing anything from laptops to smart fridges and mobile phones. ALGOR maintains many social media and various videosharing platforms. It also owns the One Go app. It sells data generate through these business to consumer services to the highest bidder.

Los 24s and the **arctic people's liberation front (APLF)** have a small footprint in the cyber domain. They actively seek to partner with **4L4K4Z4M**, a global hacker collective hellbent on challenging the existing world order through digital disruption, and making some money in the process.





AI Capabilities

How do they work?

AI Capability

An AI capability is the ability of a computer system to perform a task that normally requires human intelligence. The AI capabilities are grouped by function (e.g. sensor, network management, etc.). Each function group comes in three levels, Level I, II and III. The function groups are clustered in categories for ease of use. Capabilities are either available at the start of the game or the result of trades/diplomacy, theft, or successful R&D. Once a faction has access to an AI capability, it retains access during the game, although the faction can choose not to use the AI capability.

The AI Capabilities are represented by cards. Each card represents a AI function, providing the relevant details and information of each of the three levels. The card describes the function and the capability of each of the levels. The level denotes how advanced the AI capability is, the game starts with level I AI capabilities. Each faction begins the game with a set of AI capabilities.

Capability level

Each function group of AI capabilities starts at level I, up to a maximum of level III. In turn 1, parties can develop AI capabilities of level I, in turn 2 of

level II or level I and in turn 3 all levels can be developed. Higher level AI capabilities include the functionality of the lower levels. For example, if a faction gains access to Network Management level II, it will also have access to Network Management level I. Even if a faction gains access to an AI capability of a certain level through means other than research, the access includes access to lower levels of the same function.

Automation and autonomy of AI

The level of automation is determined by the capabilities of the unit. The extent to which a human is on/in/off the observe, orient, decide, and act (OODA) loop is separate from the capability as such. Granting less autonomy is a choice.

This means that the level of automation of functions is implied by each AI capability, i.e. each is at least a L1 level (described below). Each AI capability's description should be understood to state that the AI can perform the specific task without supervision, i.e. autonomously.

If an AI capability or a combination of AI capabilities can execute the assigned action in a turn fully autonomously the faction chooses whether

it does or not do so. Whether a given unit can function autonomously or perform a specific mission/tasks autonomously depends on the presence of sufficient relevant AI capabilities. For the avoidance of doubt, a user may grant less autonomy than the capability indicates in its description. Reducing the level of autonomy may lead to a reduced speed, efficiency or efficacy.

The game does not pre-determine if or when autonomy is reached because autonomy is context dependent and requires a choice. The former depends on the mission as well as the AI capabilities deployed. The choice is made by the player(s) as a result of a policy or command decision. It is left to the player(s) to argue why a certain unit with a certain mission in a given circumstance is or is not able to function autonomously during the action phase.

There are five levels of automation and autonomy:

- Level 0, no automation (none of the AI capabilities in the game are L0).
- Level 1, 'hands-on', the AI has a specific (sub)task.
- Level 2, 'hands-off', the AI executes multiple tasks but requires supervision or overall control.
- Level 3, 'eyes-off', the AI can carry out



almost all tasks, however a human operator can take over control in case of exceptional circumstances (e.g. accidents, unforeseen events, etc.).

- Level 4, 'mind-off', the AI is autonomous in pre-defined circumstances and environments (i.e. mapped terrain, known factory, etc.).

- Level 5, 'human optional', the AI is fully autonomous.

On the next pages, you will find an overview of all AI capabilities available in the wargame.

Overview AI capabilities

Theme	Function	Details	LvL	Name
Input and analysis	Sensing	The ability to sense real world surroundings of a device or platform.	I	Full EM
			II	Biosensors
			III	Individual sensors
	Image capturing and processing	The ability to track and identify objects using images, including outside the visible spectrum.	I	OD
			II	ODR
			III	OTABR
	Predictive analytics	The ability to combine and synthesize input to generate actionable data for military activities.	I	Integrated analysis
			II	Battle network
			III	Predictive Integrated Network Analysis
	Camouflage	The ability to fool a sensor and/or the correct analysis of sensory input.	I	Spoofing
			II	Data Poisoning
			III	Active camouflage
	Network management	The ability to manage and maintain digital networks for optimal use (e.g. local networks, internet or other wired or wireless networks).	I	Distributed traffic/routing
			II	Networked data processing and collaboration
			III	Evolving data processing routing mesh webs
Engagement	Targeting and shooting	The ability of an algorithm to target a weapon and fire it, or, if applicable, guide it to said target.	I	Automated Target Recognition
			II	TRACE
			III	Dynamic kill chain
	Countermeasures	The ability to counter incoming objects (fire or platforms).	I	Quick kill
			II	Iron beam
			III	Flash shield
	Munitions	The ability of munitions (including missiles and bombs) to strike a target.	I	Precision Guided Munitions (PGM)
			II	Flexible detonation
			III	Dynamically Targeting Munitions
	Command and Control	The use of AI in planning and execution of missions.	I	Battle positions
			II	Joint Command & Control
			III	CODE

	Code	Description
	1A-I	The AI is able to identify data across the full range of the electromagnetic spectrum (LIDAR, RADAR, IR)
	1A-II	The AI is able to track biological compounds (e.g. weapons) or exhaled CO ₂ , minute vibrations and temperature shifts to identify biological systems (i.e. people and animals).
		The AI is able to identify the smell (fatty acids, fragrances, food condiments) and voiceprint of people, groups, origins or individuals.
	1B-I	The AI can use sensor input (e.g. cameras) to capture real world 3D scenes to identify an object and/or person (e.g. facial recognition).
	1B-II	Object detection and recognition: the AI can detect and segment images to separate and identify both object and location.
		Object tracking and behavior recognition: the AI can track an object over multiple images (e.g. video) and analyze behavior/movement to determine context, intent, objective, type of activity.
	1C-I	The AI integrates multi sensor information with limited integrative capabilities (primarily at platform and its surrounding area level).
	1C-II	The AI can fully integrate multi-sensor information at real time across a multitude of platforms or systems.
ed		The AI integrates multi sensor information at real time across a multitude of platforms or systems and generates likelihoods for movements or actions of observed activities.
	1D-I	The AI can use crafted data (e.g. images) to fool another AI into recognizing or failing to recognize data (e.g. decision boundary exploit).
	1D-II	The AI can add fake or irrelevant data to AI training data sets to reduce effectiveness of the training data for new AIs or introduce a known weakness to be exploited later.
		The AI can use adversarial response(s) to determine decision boundaries of active AIs and feed information to reduce its efficacy.
	1E-I	The AI can reroute network traffic and loads via multiple nodes in real time to optimize throughput and/or avoid network failures.
ed col-	1E-II	The AI can create information redundancy by splitting, duplicating or otherwise managing the traffic the network carries.
nes,		The AI can manage network (including powering nodes or hubs), create information redundancy (splitting, duplicating data the network carries), and bring parts of the network off-line or on-line (e.g. in light of impending or expected failures).
	2A-1	The AI can select targets (i.e. identify and whether it is destroyed or not) from a given class of targets in an assigned area.
	2A-II	The AI can perform target recognition and adaptation in contested environments (incl. cluttered urban environments), to select and engage.
		The AI can select an area to perform a mission, using the battle network, and selects targets to engage dynamically.
	2B-I	The AI can defend against incoming missiles using countermeasures suited to the type of incoming weapon.
	2B-II	The AI can defend against incoming missiles, drones or bombs using laser air defense.
		The AI can identify potential shooters and determine likelihood of attack in order to disrupt, delay or counter an impending the attack.
GM)	2C-I	The AI can steer a missile or bomb onto a target, either using pre-programmed coordinates or by assisted targeting (e.g. laser).
	2C-II	The AI can change fuse time, explosive speed and/or focus to optimize the impact on a given target.
ns		The AI can determine real time where to strike a target to have the highest chance of neutralizing it (e.g. location or timing)
	2D-I	The AI can analyze intelligence, traffic, sensor data, and other input to identify patterns to identify an of axis of advance, concentration of force or center of resistance.
	2D-II	The AI is used to plan, synchronize and assess tactical actions in a variety of environments both in the planning process and during the execution of missions (e.g. updating timings, targets and responses).
		Collaborative Operations in Denied Environments enables the AI to operate in collaborative autonomy, a group of platforms can work together to perform their mission.

Theme	Function	Details	LvL	Name
Movement	Swarm	The ability to multiple vehicles in flight, on the surface or under it.	I	Hierarchical Coordination
			II	Coordination by consensus
			III	Emergent coordination
	Aerial movement	The ability to perform relevant activities to operate an aerial platform as such (i.e. flying), the vehicle does not need to be designed specifically or solely for AI use.	I	Navigation
			II	Take-off/landing
			III	Visual aid navigation
	Ground movement	The ability to move a ground vehicle (wheeled or tracked), the vehicle does not need to be designed specifically or solely for AI use.	I	Mule
			II	Ox
			III	Bison
	Naval movement	The ability to perform relevant activities to operate a marine platform as such (i.e. surface or submarine), the vehicle does not need to be designed specifically or solely for AI use.	I	Pilot
			II	Mimic
			III	Brown/blue
Cyber and cryptography	Cryptography	The ability to protect communication (i.e. data, instructions, etc.) between platforms, nodes, users, etc. of oneself or friendly parties.	I	Hybrid cryptography
			II	Quantum cryptography
			III	Symmetric cryptography algorithm
	Cryptanalysis	The ability to decrypt and analyze encrypted communication (i.e. data, instructions, etc.) between platforms, nodes, users, etc. of adversaries or competitors.	I	Traffic analysis
			II	Quantum cryptanalysis
			III	Quantum cracking
	Cyber defense	The ability of AI used to resist hostile Incursions (infecting software or a network).	I	Patch AI
			II	Mayhem
			III	Counter autonomy
	Cyber attack	The ability of AI used to damage or disrupt networks or obtain access with a specific objective (e.g. to steal information).	I	AI zombies
			II	AI Spearfishing
			III	Self-adapting virus

	Code	Description
	3A-I	Swarm elements are controlled by 'squad' level agents who are in turn controlled by higher-level controllers.
	3A-II	All swarm elements communicate to one another and use 'voting' or action-based methods to converge on a solution.
		Coordination arises naturally by individual swarm elements reacting to one another, like in animal swarms.
	3B-I	The AI can navigate a given area, based on dynamic conditions (e.g. light) or pre-plotted area (e.g. patrol route).
	3B-II	The AI can take-off and land autonomously, including carrier landing.
		The AI can move through complex cluttered and dynamic environments (e.g. moving objects in confined spaces) without relying on GPS.
	3C-I	The AI can move a ground vehicle from point A to point B, when given a route.
	3C-II	The AI can move a ground vehicle from point A to point B without being given a route.
		The AI can identify a location and route for a given mission and move a ground vehicle towards it.
	3D-I	The AI can operate and steer the vessel and perform all relevant control functions to use the platform optimally (including loitering and hiding, provided the platform is capable to do so).
	3D-II	The AI is able to operate the vessel in a manner that mimics sea life by moving as schools of fish (including course and speed).
		The AI is able to operate in blue and brown environments, including canals, drainage systems, harbors and other shallow and/or manmade watery environments (e.g. sewers).
	4A-I	The AI uses encryption algorithms based on complex computationally expensive to generated cyphers in conjunction with cryptographic hash functions to generated security.
	4A-II	The AI uses quantum mechanical properties to encrypt information and secure its transmission (e.g. the no-cloning) between secure systems (low 'noise' and shared protocols).
thm		The AI uses symmetric cryptographic algorithms that are secure against a cryptanalytic attack by a quantum computer.
	4B-I	The AI can identify patterns in data streams and make assumptions about the sender and receiver of data.
	4B-II	The AI uses quantum computes to crack hard mathematical problems used in modern cryptography (i.e. Shor's algorithm) to grant full access to encrypted messages.
		The AI uses quantum computers to access any and all information not protected using a symmetric cryptography algorithm.
	4C-I	The AI can patch systems at machine speeds to ensure systems are up to date and potential exploits.
	4C-II	The AI can find and fix security vulnerabilities in software.
		The AI can identify flaws or predictable patterns in adversarial AI to exploit AI brittleness.
	4D-I	AI can infect and manage a botnet to prepare and subsequently executed DDOS attacks on selected websites or services (e.g. routers or nodes).
	4D-II	The AI can target and mimic parts of the codes or interface to pass of as legitimate to infiltrate a specific user's system.
		The AI can continuously or repeatedly analyze code relevant to a target and copy and mimic parts of the codes or interface to defeat countermeasures, adapting and changing over time.

Theme	Function	Details	LvL	Name
Behavior & Interface	Language	The ability to process and translate languages, for use as device input or interaction.	I	NLP
			II	Generative pretrained transformer (GPT) 5
			III	UT
	Behavioral analysis	The ability of AI to determine and identify aspects of human behavior based on data provided, for the avoidance of doubt, this excludes sensors.	I	Tracking
			II	Understanding
			III	Generalized understanding
	Deep fakes	The ability to create or amend visual or auditory information, from one individual up to a short narrative, using existing or generated characters.	I	Deep fakes
			II	Deep mask
			III	Adaptive GANs
	Mis-/Dis-Information	The ability to create or amend information, from one individual up to a short narrative, including real or generated characters intended for distribution through traditional or social media.	I	AI Trolls
			II	AI Active measures
			III	AI campaign setting
Commercial AI	Urban management	The ability to manage a large volume of traffic on a given infrastructure or system (i.e. planning optimal routes and/or managing traffic).	I	Traffic control
			II	Environmental control
			III	Access control
	Logistics and planning	The ability to generate complex planning and timetables for logistics and strategic planning.	I	Planned maintenance
			II	Organizational deployment
			III	Real time re-tasking
	Production management	The ability to manage platforms, vehicles or assets used to produce products or build structures.	I	Robot workers
			II	Automated processes
			III	Robotic factories
	Manufacturing	The ability to engineer and manufacture products or part thereof, particularly with additive processes.	I	AI CAD/CAM
			II	3D bio printing/synthetic biology
			III	Poly system materials

	Code	Description
	5A-I	The AI as limited and circumscribed ability to understand languages as spoken (e.g. depending on language, background noise, topic, accent, etc.).
mers	5A-II	The AI can distinguish language as well as humans and can contextualize and process the information in spoken language (it is weak in common sense, explanations, creativity, etc.).
		The AI uses GPT-5 to understand and can vocalize a response in real time in a selected language or accent (universal translator).
	5B-I	The AI can track use of digital tools (mob phones, socials, posting, calls) to identify contacts, networks and locations related to its user.
	5B-II	The AI can determine the primary activity performed in a scene (e.g. video) based on directly visible evidence (e.g. visible pen signing a contract).
		The AI can infer context based on a scene based on abstracted understanding on the basis of observed behavior (holding invisible pen based on posture of a person).
	5C-I	The AI can use material of existing people to generate moving images of said people that are auditory and visually convincing and express or act in a user specified manner.
	5C-II	The AI can create fully synchronized high fidelity verisimilitude, e.g. movement of fingers, skin colorations, muscle movement, etc.
		The AI uses dynamic Generative Adversarial Networks to generate more lifelike content (that is harder to detect as AI Generated).
	5D-I	The AI can use talking points generated in advance and/or in response to news posts or events to generate trending topics.
	5D-II	The AI can reach out and maintain relationships with users to dynamically feed misinformation in a personalized and deceptive manner (i.e. posing as human or impersonating someone).
		The AI can generate and disseminate realistic mis-/dis-information campaigns using a variety of channels, influencing the news cycle.
	6A-I	The AI can manage the traffic control (e.g. traffic lights) to optimize the flow of vehicles and/or people in a given area (building, block, neighborhood).
	6A-II	The AI can manage the utilities (lighting, water, gas) in a given area (building, block, neighborhood) to optimize consumption and availability.
		The AI can manage access to an area by controlling choke points in virtual (network switches etc.) and physical space (i.e. bridges, tunnels, traffic lights) and access to and use of power, water and other utilities.
	6B-I	The AI is able to predict and identify what parts of complex machinery or equipment needs to be replaced or taken offline for maintenance before it suffers a failure.
	6B-II	The AI is able to generate integrated operational plans to move and/or supply large groups of people dispersed of a variety of locations (e.g. military formations or refugees).
		The AI is able to reassess targets based a variety of factors (value, damage, likelihood of success, etc.) and re-target assets during the execution of the mission (e.g. in flight).
	6C-I	The AI can operate individual vehicles or machines (e.g. part of an assembly line or mining operation) in a given role and pre-defined area.
	6C-II	The AI can execute complex tasks using multiple vehicles and/or machines to carry out the task (e.g. packaging materials, refining raw materials).
		The AI can control and manage a integrated set of machines or vehicles performing a specific task (e.g. a building a road, operating a factory, etc.).
	6D-I	The AI can use 3D printers to generate parts and designs that can be used in engineering or manufacturing, i.e. creating products or replacing parts (e.g. maintenance or improvements).
gy	6D-II	The AI can create new and existing biological products based on insights in biology and using synthetic biology or 3D bio-printing to make such products.
		The AI can design and create products using diverse materials (e.g. biological, metals, etc.) in various phases (e.g. solid, liquid) to create products from nano-scale tools to artificial organisms.

Wargame artifacts

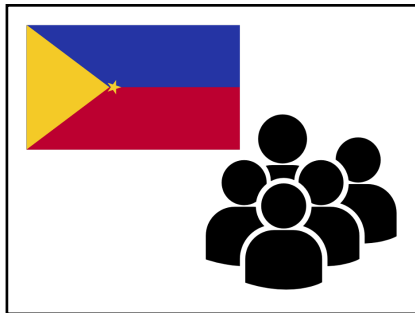
Unit & AI Capability Cards

Unit cards

Except for 4L4K4Z4M, all teams have their own units. A unit is depicted on an unit card. Unit cards are placed on the board as part of orders in order to depict a particular action and/or operation.

Front of card

The front side of the card depicts the nationality and type of unit, see example.



Back of card

The back side of the card is blanco. Here you write the codes of the AI capabilities that a that a specific unit has, see example.



Important

Please keep in mind:

1. You can only note AI capabilities that are in your possession on the card.
2. Units can be equipped with a limited number of AI capabilities, see table below.
3. Note that each units can have a different combination of AI capabilities up to the maximum given below.
4. When placing the cards on the board, place them front side up with the unit icon and flag visible.

Unit type	Description	Max # AI Cap/unit
Tactical missiles	Medium size missiles, cruise missile (expended when used)	2
Ship	Destroyer, container vessel, aircraft carrier, ferry	4
Boats	Small ships, cutter, speedboat, yacht	2
People	platoon, gang, department, band of insurgents (20-40 people)	1
Soft skinned vehicles	Trucks, cars, other (wheeled) vehicles mostly for civilian use	2
Armored vehicles	Tank, infantry fighting vehicle, armored car	3
Aircraft	Fighter, bomber, jetliner, helicopter	2
Investment (companies only)	Business development, resource exploitation or other investments	4

AI Capability cards

There are 26 unique AI capabilities represented in the wargame. Each capability comes in three levels.

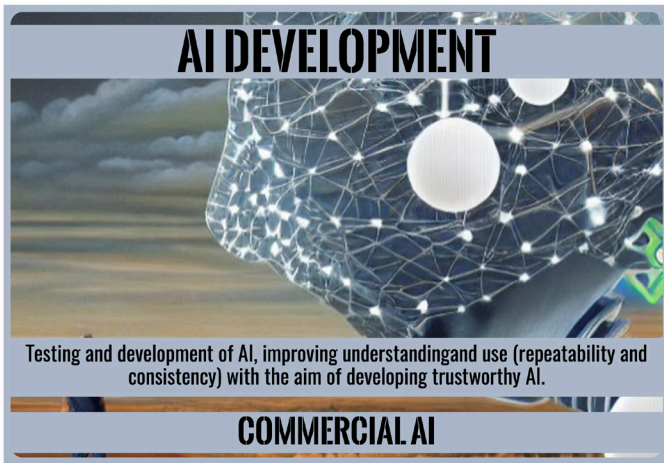
At start of game, each team has several AI capabilities in their possession.

Front of card

The front side of the card depicts the type of capability, the category it belongs to and a brief description of the capability.

Back of card

The card's back side describes the levels of the AI capability and its code.



← Function Group

← General description

↑
Category

AI Development	
Description	Level
AI Development tools: Machine learning and convolutional neural networks.	I
AI Transparency: Tools and designs that enable humans to understand the decision process leading to specific outcomes in neural networks (i.e. avoiding black box reasoning).	II
AI Adeptiveness: The ability of neural networks to introduce flexibility in decision making, in order to avoid brittleness and introduce context.	III
6.E	

← Function Group

← AI capability level

← Hole indicates the AI capability level a team possesses

↑
Start of code

Full code is **number . letter . level**

In this case: **6.E.II**

About the Actors

Get to know the players

Who

In the war game, participants play in teams. Each team represents an actor. This can be a state, an international non-governmental organisation, an armed non-state actor or a multinational company.



Your turn

Command the battle-field.



The Republic of Korbash (KOR)

KOR was founded in the 1920s after a short civil war in which the Idaska-backed monarchy was deposed. With a strong mandate from the people, the victors imposed a two-party democratic system. In 1923 the Democratic Korbash Party (DKP) won the first elections. Since, 1923 the DKP has been in power for roughly seventy out of the last hundred years. Critics accuse Korbash of being a capitalist technocracy.

Successive KOR governments have pursued a hegemonic foreign policy agenda using both soft and hard power. KOR is the dominant player in the world economy. It has many allies across the globe. KOR's allies are selected for their utility and economic strength. Not because of their type of government or commitment to specific values.

KOR has several major competitors who routinely, consistently, and aggressively challenge its interests abroad. They seek to displace Korbash's influence in key regions, such as the Arctics or Sago.

Korbash has the third largest, but most advanced, armed forces in the world. It is tasked with defending the country from attack and protecting its national interests on a global scale. KOR sees the use of the armed forces as an integral part of its efforts to pursue its national goals. It has been involved in multiple wars over the past 50 years.

Team

Korbash is represented in all three theatres. Activities are centrally coordinated.

Role	# of players	Description
Central Government	2-3	Official representative, manage R&D, distribute reinforcements
Cyber command	2	Controls cyber activities and operations
Arctic Military Region	2	Controls activities in New Guigo
Military Assistance Group	2	Controls activities in Sago

Income

Korbash generates the following income. It may increase or decrease by your actions.

Turn	Amount
Turn 1	0
Turn 2	15
Turn 3	15

In 2018 the Korbash AI Initiative Act was codified into law. It outlines four key lines of effort, including increasing AI research investment, unleashing AI computing and data resources for government and defence purposes, setting AI technical standards and building Korbash's AI workforce. INGOs accuse KOR of using AI for undemocratic and repressive purposes.

Approximately 632 million people live in Korbash. With 8429 million km² of landmass, it is the world's largest country. KOR has the largest economy in the world, closely followed by Idaska.

Objectives

KOR wants to extend its influence across the globe, and specifically:

1. Achieve dominance over Idaska.
2. Increase resource control in New Guigo.
3. Stabilize Sago to bring it into your sphere of influence.

Factors that influence Korbash's relation with other actors

Kingdom of Idaska (IDA) is KOR's main global rival. This peer enemy is seeking to disrupt KOR's global dominance and reform the international order on liberal and democratic principles. Since the early 2010s, KOR and IDA have been engaged in multiple trade wars and diplomatic tensions flare up around other topics as well. IDA accuses KOR of imposing illegal sanctions, stealing technology and infringing intellectual property.

International Non-Governmental Organizations (INGOs)

have become more critical of KOR over the past ten years. They criticize KOR's expansionary foreign policy and "wars of choice". In global political fora, KOR often stifles decision-making and the advancement of international law. KOR does support various INGOs and takes part in peacekeeping operations.

Multinational corporations, such as Schiller Inc. and ALGOR, operate in

and do business with KOR. Both companies have a strong AI research program and maintain ties with both KOR and IDA. The KOR government does require multinationals to share data when requested.

Los 24s. After an drug epidemic that cost the lives of over 700,000 citizens, KOR declared a war on drugs in 2002. Ever since it has sought to disrupt the global drug flows. Los 24s are the largest narco cartel. They operate globally. KOR has an interest to disrupt their operations or at least shield KOR from them.

Arctic People's Liberation Front

The APLF accuse KOR of illegally exploiting arctic resources, leaving a trail of long-lasting destruction in its wake. The APLF seeks to sabotage and undermine KOR activities in the arctics.

4L4K4Z4M In the past years, the 4L4K4Z4M has sought to disrupt KOR society for financial gain. KOR recently put the hacker collective on its list of enemies. Critics accuse KOR of financing 4L4K4Z4M in the early 1990s, in order for it to steal state secrets from Idaska.

KOR has deployed various assets and existing AI capabilities in all three areas of operations. For an overview of all AI capabilities in possession of KOR at start of game, see below.

Units

In the two physical domains, Korbash has units deployed, see tables next page.

Units are reinforced on a set schedule, which will be provided at start of game.

AI capabilities

AI CAPABILITIES

Korbash has the following capabilities at start of game.

Category	Function group	Detail	Level
Input and analysis	Sensing	Full EM	I
	Image capturing and processing	OD	I
	Predictive analytics	Integrated analysis	I
	Network management	Distributed traffic/routing	I
Engagement	Targeting and shooting	Automated Target Recognition	I
	Countermeasures	Quick kill	I
	Munitions	Precision Guided Munitions (PGM)	I
Movement	Aerial movement	Navigation	I
	Ground movement	Mule	I
	Naval movement	Pilot	I
Cyber and cryptography	Cryptography	Hybrid cryptography	I
	Cryptoanalysis	Traffic analysis	I
	Cyber attack	AI zombies	I
Behavior & Interface	Behavioral analysis	Tracking	I
	Deep fakes	Deep fakes	I
	Mis-/Dis-information	AI Trolls	I

Units

At start of game you have the following units,

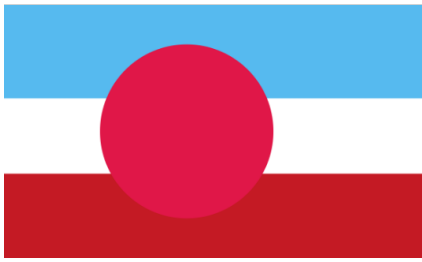
Sago

Unit type	# of units	Details per unit	Max # AI Cap/unit
People	2	Soldiers, embassy security platoon	1
Soft skinned vehicles	1	Soft skinned embassy staff cars	2
Drones	1	Large number of small drones	2
Boats	1	Squadron of fast attack vessels for coastal operations	2

New Guigo

Unit type	# of units	Details per unit	Max # AI Cap/unit
People	4	Soldiers, border protection forces	1
Drones	2	Large number of small drones	2
Boats	1	Squadron of fast attack vessels for coastal operations	2





Kingdom of Idaska (IDA)

After its defeat in the Great War (1965 – 1971), Idaska’s (IDA) monarchy was forced to give up many of its royal prerogatives in favour of a new democratic government. Democratic principles and a firm adherence of the *trias politica* were instilled at the heart of IDA’s new constitution. With financial support from its victors, among which its rival Korbash (KOR), IDA was able to rebuilt the nation over the next thirty years. By 2001 the country had become the 4th largest economy in the world, by 2023 it was the 2nd largest. It has a dynamic high -tech sector that is at the forefront of new developments and innovation.

Although many economists praise IDA’s economic post war revival, some are weary of Idaska becoming too powerful and dominant on the world stage. They accuse IDA of ruthlessly modernizing without regards for rights of minorities, e.g. indigenous peoples in the arctics, and nature. Even more worrisome, critics fear that conservative elements within the government and monarchy seek to exploit IDA’s post war boom to legitimize their historic expansionist claims under the pretence of globalization and liberalism.

IDA has not been (overtly) involved in a conflict with another country since the Great War, Analysts fear that the country’s resurgence on the world stage might lead to a confrontation with KOR. IDA’s rapid growth and technological superiority directly af-

Team

Idaska is represented in all three theatres. Activities are centrally coordinated.

Role	# of players	Description
Central Government	2-3	Official representative, manage R&D, distribute reinforcements
Cyber command	2	Controls cyber activities and operations
Arctic Military Region	2	Controls activities in New Guigo
Military Assistance Group	2	Controls activities in Sago

Income

Idaska generates the following income. It may increase or decrease by your actions.

Turn	Amount
Turn 1	0
Turn 2	15
Turn 3	15

fects KOR’s economic dominance. Korbashian policy hawks accuse IDA of forcing new alliances onto nations through economic cooperation, direct investment and ensuring technological interdependence.

IDA’s tech sector has successfully sought to become a global leader in AI, cyber and manufacturing. Home to the world’s most successful technology companies, including Critter, Pear, Adroit and Ample.

Although, IDA claims no territories overseas and officially does not have an expansionist agenda, it does have the largest conscript army in the world. Since 2015, it is modernizing its armed forces considering foreign and domestic threats.

IDA has a landmass of 6201 km². Roughly 521 million people live in IDA.

Objectives

IDA wants to extend its influence across the globe, and specifically:

1. Achieve dominance over Idaska.
2. Increase resource control in New Guigo.
3. Stabilize Sago to bring it into your sphere of influence.

Factors that influence Idaska’s relation with other actors

Korbash (KOR) IDA’s main global competitor. IDA is seeking to disrupt KOR’s dominance and reform the international order in line with liberal democratic principles and free trade. Since the early 2010s, KOR and IDA have been engaged in multiple trade wars. IDA accuses KOR of imposing illegal sanctions, stealing technology and infringing on intellectual property held by IDA companies, especially in the field of AI.

International Non-Governmental Organizations (INGOs) have become increasingly critical of IDA, as the conse-

quences of the country's "growth at all cost" policy have become clear, both domestically and abroad. Massive pollution, displacement of indigenous peoples and economic practices that increase inequality are fuelling IN-GOs' concerns

Both **Schiller Inc.** and **ALGOR**, operate in and do business with IDA. ALGOR is headquartered in IDA and provides crucial business to consumer services, such as mobile phones, various apps and electric cars. All are widely used in IDA. Schiller Inc. works together with IDA on topics ranging from cargo transport to rare mineral exploration to Artificial Intelligence.

Los 24s. Despite IDA's liberal drug policies, it is concerned with the influence of narcocartels across the globe, incl. Sago. It fears that the city state will become a haven for organized crime.

Arctic People's Liberation Front. The APLF accuses IDA of illegally exploiting arctic resources, leaving a trail of long-lasting natural destruction in its wake. The APLF actively seeks to sabotage and undermine IDA activities in the arctics.

4L4K4Z4M In the past years, the 4L4K4Z4M has actively sought to disrupt IDA society for financial gain. IDA recently put the hacker collective on its list of enemies.

AI capabilities

IDA has deployed various assets and existing AI capabilities in all three areas of operations. For an overview of all AI capabilities in possession of IDA at start of game, see below.

Units

In the two physical domains, IDA has units deployed, see tables next page.

Units are reinforced on a set schedule, which will be provided at start of game..

AI CAPABILITIES

Idaska has the following capabilities at start of game.

Category	Function group	Detail	Level
Input and analysis	Sensing	Full EM	I
	Image capturing and processing	OD	I
	Predictive analytics	Integrated analysis	I
	Network management	Distributed traffic/routing	I
Engagement	Targeting and shooting	Automated Target Recognition	I
	Countermeasures	Quick kill	I
	Munitions	Precision Guided Munitions (PGM)	I
Movement	Aerial movement	Navigation	I
	Ground movement	Mule	I
	Naval movement	Pilot	I
Cyber and cryptography	Cryptography	Hybrid cryptography	I
	Cryptoanalysis	Traffic analysis	I
	Cyber attack	AI zombies	I
Behavior & Interface	Behavioral analysis	Tracking	I
	Deep fakes	Deep fakes	I
	Mis-/Dis-information	AI Trolls	I

Units

At start of game you have the following units,

Sago

Unit type	# of units	Details per unit	Max # AI Cap/unit
People	2	Soldiers, embassy security platoon	1
Soft skinned vehicles	1	Soft skinned embassy staff cars	2
Drones	1	Large number of small drones	2
Boats	1	Squadron of fast attack vessels for coastal operations	2

New Guigo

Unit type	# of units	Details per unit	Max # AI Cap/unit
People	4	Soldiers, border protection forces	1
Drones	2	Large number of small drones	2
Boats	1	Squadron of fast attack vessels for coastal operations	2





Schiller Inc.

Schiller Inc. is a multinational corporation that provides crucial business to business services, ranging from cargo transport to rare mineral exploration to Artificial Intelligence and cyber solutions. Schiller Inc. is headquartered in Korbash and has strong relations with the Korbash government. To a lesser extend it also has relations with Idaska. Both countries, but also several International Non-Government Organizations (INGOs) do business with Schiller Inc.

Although a public company, the Schiller family owns 52% of the company. Schiller Inc. is currently led by the charismatic entrepreneur Henriette Schiller. Apart from its own companies and their subsidiaries, Schiller Inc. has vested business interests in manufacturing, extraction, and cyber security companies as a shareholder, start-up incubator and through various mergers and acquisitions.

Objectives

To make profit and expand into new markets..

Factors that influence Schiller's relation with other actors

Korbash Schiller Inc. is headquartered in KOR and provides crucial business to business services to Korbash, ranging from cargo transport to rare mineral exploration to Artificial Intelligence. Schiller Inc. has made largescale concessions to the KOR government with regards to the sharing of data and technologies. In return, KOR heavily

Team

Schiller is active in all three theatres. Activities are centrally coordinated.

Role	# of players	Description
Corporate HQ	2-3	Cyber and division of funds between Sago and New Guigo
Mining & Drilling Inc.	2	Subsidiary managing activities in New Guigo
Cargo & Trans Ltd.	2	Subsidiary managing activities in Sago

Income

Schiller generates the following income. It may increase or decrease by your actions.

Turn	Amount
Turn 1	15
Turn 2	20
Turn 3	25

leans upon Schiller Inc. for the production of (smart) weapons and other military technologies.

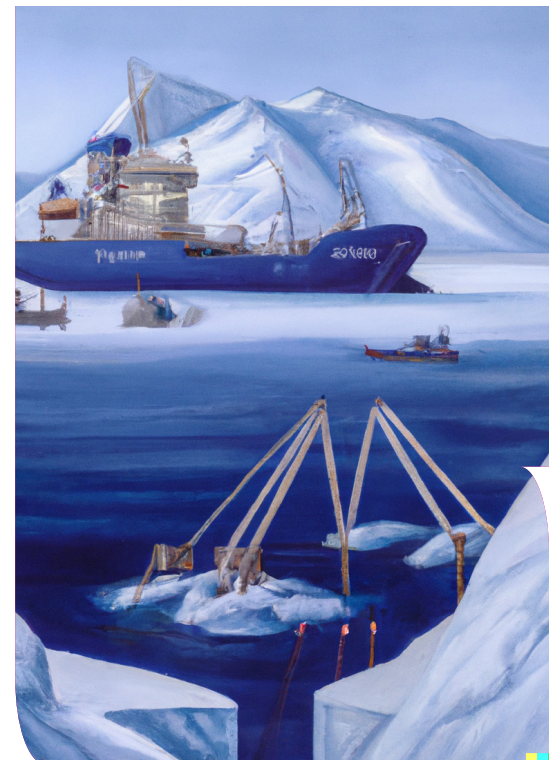
Kingdom of Idaska (IDA) Schiller Inc. has extensive operations in Idaska. It provides a variety of services. In recent years, relations with IDA government have become strained. This is predominantly due to restrictions placed upon Schiller Inc. because of KOR sanctions. Various IDA government representatives and civil society leaders have accused Schiller Inc. of nefarious practices, ranging from pollution to bribery.

International Non-Governmental Organizations (INGOs) do not shy away from doing business with Schiller Inc. Schiller is, through its philanthropical foundation, an important donor for the INGO's. They are, however, weary about the company's pursuit of profit at the detriment of societies and nature. Especially of concern is the Schiller Inc.'s development and exploitation of AI for "security" purposes.

ALGOR Schiller Inc. is in active com-

petition with ALGOR across the world. Both multinationals seek to enter each other's markets. Paradoxically, both companies also rely on each other for certain services. For instance all of ALGOR's phones are shipped into Sago using Schiller cargo planes.

Los 24s. Schiller Inc.'s presence in Sago is limited. Its cargo ships fre-



quently dock at Sago's harbors. At the annoyance to the company, the narco trafficking cartel Los 24s often ships its goods illegally using Schiller Inc. ves-

sels. **4L4K4Z4M** seeks to disrupt Schiller Inc. activities for financial gain through cybercrimes. It considers the company a high-level target.

AI capabilities

Arctic People's Liberation Front (APLF) accuses Schiller Inc. of prioritizing profit of planet. They blame the company for polluting the arctic region. APLF does not shy away from sabotage and actively using violence against Schiller Inc. sites and personnel.

Schiller Inc. has deployed various assets and existing AI capabilities in all three areas of operations, see table below.

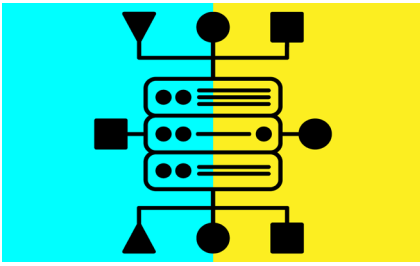
Units

Schiller Inc. has no units represented in the game. However, it can acquire Investments, a unit type, at game control.

AI CAPABILITIES

Schiller has the following capabilities at start of game.

Category	Function group	Detail	Level
Input and analysis	Sensing	Full EM	I
	Image capturing and processing	OD	I
	Predictive analytics	Integrated analysis	I
	Camouflage	Spoofing	I
	Network management	Distributed traffic/routing	I
Engagement	Targeting and shooting	Automated Target Recognition	I
	Countermeasures	Quick kill	I
	Munitions	Precision Guided Munitions (PGM)	I
	Command and Control	Battle positions	I
Cyber and cryptography	Cryptography	Hybrid cryptography	I
	Cryptoanalysis	Traffic analysis	I
	Cyber defense	Patch AI	I
Behavior & Interface	Language	NLP	I
	Behavioral analysis	Tracking	I
Commercial AI	Urban	Traffic control	I
	Logistics and planning	Planned maintenance	I
	Production management	Robot workers	I
	Manufacturing	AI CAD/CAM	I
	AI development	AI Development tools	I



ALGOR

ALGOR is a global technologies company known for its advanced computers, electric vehicles and AI solutions. It is dedicated to unleashing the power of AI & quantum computing to all citizens in the world in the coming three years. Its business to consumer products & services, such as smartphones, Eagle Drones, the OneGO app, and ALGOR MAPS, generate vast amounts of valuable data for companies and governments alike. ALGOR's Silver, with its "beyond search" find engine is the most used web browser in the world. ALGOR often stands accused of breaching privacy laws. It follows a 'break first, apologize later' strategy. ALGOR has no CEO, rather it has an executive council, that communicates anonymously, through its "everything" OneGo app.

ALGOR is headquartered in IDA and provides crucial business to consumer services, such as mobile phones, various apps and electric cars. All are widely used in IDA. The IDA govern-

Team

Algor is active in all three theatres. Activities are centrally coordinated.

Role	# of players	Description
Corporate HQ	2-3	Cyber and division of funds between Sago and New Guigo
Skylink Inc.	2	Subsidiary managing activities in New Guigo
Smart Services Ltd.	2	Subsidiary managing activities in Sago

Income

Algor generates the following income. It may increase or decrease by your actions.

Turn	Amount
Turn 1	15
Turn 2	20
Turn 3	25

ment does require multinationals to share data when requested. This includes user-data generated abroad.

Objectives

1. To increase profit through forging alliances and expand operations in the cyber domain and the Sago Metropolis.
2. To be a leader in the research and development of Artificial Intelligence capabilities to be sold at a profit.

Factors that influence ALGOR's relation with other actors

Korbash (KOR) ALGOR's phones are

the most advanced in the world. They top sales in Korbash. It has its own 5g network. ALGOR is working hard to become the dominant electric vehicle company in KOR. The OneGo app is the most downloaded app in Kor. ALGOR has made major concessions to the KOR government with regards to the sharing of data and technologies.

Kingdom of Idaska (IDA) ALGOR is headquartered in IDA. It dominates the mobile phone, the electric vehicle and the app markets with its various products and services. ALGOR phones and laptops are used by all civil servants and within the armed forces.

ALGOR shares all of its data, even those from users abroad, with IDA.

International Non-Governmental Organizations (INGOs) are concerned with ALGOR's dominance in the technology domain. They fear large scale breaches of privacy in the collection and the sharing of data. Nevertheless, the INGO's receive funding from ALGOR via the Donotbeevil foundation



that ALGOR has set-up and funded.

Schiller Inc. is competing with ALGOR in the market space. Though Schiller Inc. predominantly focuses on business 2 business services, it is actively seeking to enter the business 2 consumer space. ALGOR on the other hand seeks to get a foothold in the b2b services.

Los 24s ALGOR's presence in Sago is extensive. Los 24s use ALGOR's services and products extensively for nefarious purposes, to the chagrin of the ALGOR executive council.

Arctic People's Liberation Front (APLF) accuse ALGOR from benefiting from the natural resource extraction in the arctics. ALGOR has a small presence in New Guigo.

4L4K4Z4M In the past years, the 4L4K4Z4M has actively sought to align their activities with those of Los 24s for financial gain, widely using the ALGOR services which has resulted in bad publicity for ALGOR.

AI capabilities

ALGOR Inc. has deployed various assets and existing AI capabilities in all three areas of operations, see table below.

Units

ALGOR Inc. has no units represented in the game. However, it can acquire Investments, a unit type, at game control.

AI CAPABILITIES

ALGOR has the following capabilities at start of game.

Category	Function group	Detail	Level
Engagement	Command and Control	Battle positions	I
Movement	Swarm	Hierarchical Coordination	I
	Aerial movement	Navigation	I
	Ground movement	Mule	I
	Naval movement	Pilot	I
Cyber and cryptography	Cryptography	Hybrid cryptography	I
	Cryptoanalysis	Traffic analysis	I
	Cyber defense	Patch AI	I
	Cyber attack	AI zombies	I
Behavior & Interface	Language	NLP	I
	Behavioral analysis	Tracking	I
	Deep fakes	Deep fakes	I
Commercial AI	Urban	Traffic control	I
	Logistics and planning	Planned maintenance	I
	Production management	Robot workers	I
	Manufacturing	AI CAD/CAM	I
	AI development	AI Development tools	I
	Manufacturing	AI CAD/CAM	I
	AI development	AI Development tools	I



International non-governmental organization

Since the end of the Great War in 1971, the international community has sought to solve its problems through various political fora and decision-making bodies. This led to flourishing of various international non-governmental organizations (INGOs) on topics ranging from development to humanitarian assistance, from arms trade to conflict resolution, from wildlife repopulation to nature preservation. These organisations are independent and do not hesitate to speak out against perceived injustices and wrongs.

INGOs are well financed and staffed. They have access to the latest technologies, incl. artificial intelligence (AI), through cooperation with various states and multinational companies.

The developments of AI in the military domain is of great concern to INGOs and the wider international community. For many years, they've unsuccessfully tried to get companies and governments to commit set of rules and regulations for the responsible use of AI within the military domain.

Objectives

Broker an international agreement about the use of AI in the military domain.

Team

INGOs active in all three theatres.

Role	# of players	Description
Arctic Watch Group	2	INGO team working mainly in the Arctic Region
Urban Development Team	2	INGO office located in Sago
Cyber	2	INGO cyber security observers

INGOs generate the following income. It may increase or decrease by your actions.

Turn	Amount
Turn 1	5
Turn 2	5
Turn 3	5

Factors that influence INGOs' relation with other actors

The use of AI in the military domain is of great concern to INGOs and the greater international community. They are concerned about KOR's and IDA's refusal to develop rules and regulations for the responsible use of AI within the military domain. Each state accuses the other of being unwilling to come to the negotiating table.

Korbash International Non-Governmental Organizations (INGOs) have become more critical of KOR over the past ten years. They are critical of KOR's expansionary foreign policy and "wars of choice". In global political fora, KOR often stifles decision-making and the advancement of international law. KOR does support various INGOs and takes part in peacekeeping operations.

KOR is an important player with regards to the instrumentalization of AI within the military domain. INGOs accuse KOR of not being transparent of its research and development concerning AI.

Kingdom of Idaska (IDA's recent history, made successive Idaskan governments firm proponents of the international community and especially INGOs. That said, INGOs have become increasingly critical of IDA, as the consequences of the country's 'growth at all cost' policy have become clear, both domestically and abroad. Massive pollution, displacement of indigenous peoples and shrewd economic practices are fueling INGOs' concerns.

In recent months, various anonymous sources within the IDA government have confirmed the widespread use of AI for surveillance and intel gathering purposes, both domestically and abroad. These leaks have confirmed INGOs' lingering fears about IDA's willingness to instrumentalise AI to achieve government objectives.

Multinational Corporations INGOs do not shy away from doing business with multinational corporations, such as Schiller Inc. and ALGOR. They are, however, weary about their pursuit of profit at the detriment of societies and nature. Especially of concern is the use of AI for "security" purposes and

the willingness to do business with governments in this regard.

Los 24s. INGOs are greatly concerned with the drug trade. Los 24 are the largest narco cartel. Originally from the city-state of Sago, they operate globally. In Sago Los 24s frequently disrupt INGO activities.

hort within the APLF.

4L4K4Z4M seeks to disrupt INGO activities for financial gain.

AI capabilities

INGOs have some AI capabilities and assets deployed in both New Guigo and Sago.

Units & reinforcement schedule

INGOs have assets in both New Guigo and Sago, see tables below. Units will be reinforced over the three turns. A reinforcement schedule will be released at start of game.

Arctic People's Liberation Front

Within the INGO community there is some sympathy for the moderate co-

AI CAPABILITIES

The INGO team has the following capabilities at start of game.

Category	Function group	Detail	Level
Input and analysis	Network management	Distributed traffic/routing	I
	Predictive analytics	Integrated analysis	I
Movement	Swarm	Hierarchical Coordination	I
	Ground movement	Mule	I
Behavior & Interface	Language	NLP	I
	Behavioral analysis	Tracking	I
Commercial AI	AI development	AI Development tools	I

Units

At start of game you have the following units,

Sago

Unit type	# of units	Details per unit	Max # AI Cap/unit
People	1	NGO workers active in Sago	1
Soft skinned vehicles	1	Cars used by INGO staff and marked as such	2
Drones	1	Large number of small drones equipped with cameras	2

New Guigo

Unit type	# of units	Details per unit	Max # AI Cap/unit
People	2	NGO workers active in Sago	1
Soft skinned vehicles	1	Cars used by INGO staff and marked as such	2
Drones	1	Large number of small drones equipped with cameras	2
Ship	1	Research vessel fitted for INGO purposes	4
Boats	1	group of zodiac type craft	2
Aircraft	1	Twin engine Beechcraft used to move people and supplies	2



Los 24s

Originally from Sago's 24th street in the Lower Northern District, Los Ventiquattros (Los 24s) is a cartel with global reach. The narco cartel funds its activities through the manufacturing and distribution of drugs, notably 3cm and mach7, human trafficking and extortion. They have strong support and influence among Sago's poor population as the cartel provides safety and basic services in many neighbourhoods.

Los 24s use variety of off-the-shelf technology products to support their dealings. For instance: Los 24s drug

Team

LOS24s are only active in SAGO.

Role	# of players	Description
Central Cell	3-4	Lead cell of the insurgent movement

LOS24s generate the following income. It may increase or decrease by your actions.

Turn	Amount
Turn 1	5
Turn 2	5
Turn 3	5

dealers use ALGOR's OneGo app to arrange transactions and connect with customers. Tech savvy, they are experimenting with off the shelf (AI) technologies to fuel their operations and increase control across Sago.

Objectives

Control Sago and expand operations globally.

Factors that influence Los 24s' relation with other actors

Korbash (KOR) After a highly successful market introduction of mach7 that cost the lives of over 700,000 citizens, KOR declared a war on drugs in 2002. Los 24 are the largest narco cartel. Originally from the city-state of Sago, they operate globally. KOR is hellbent to disrupt their operations.

Kingdom of Idaska (IDA) Despite IDA's liberal drug policies, it is concerned with the influence of narcocartels across the globe. Ida is greatly concerned with Los 24s' hold over Sagan society. IDA fears Los24s control over Sago will lead to corruption and negatively impact the market.

International Non-Governmental Organizations (INGOs) INGOs are greatly concerned with the drug trade and the global impact it has. Los 24 are the largest narco cartel. Sago's main INGO offers interesting opportunities to make money from time to time.

Schiller Inc. Los 24s use the company's assets to (illegally) transport drugs, irregular migrants and other goods across the globe.

ALGOR's presence in Sago is extensive. Los 24s use ALGOR's services



and products extensively for nefarious purposes.

Arctic People's Liberation Front (APLF) has little dealings with Los24s. Although the international trade routes and low population density offer opportunities for smuggling, there are no formal ties.

4L4K4Z4M In the past years, the 4L4K4Z4M has actively sought to align their activities with those of Los 24s for financial gain.

AI capabilities

Los 24s have some AI capabilities deployed in Sago.

Units & reinforcement schedule

LOS24 have assets in Sago, see table below. Units will be reinforced over the three turns. A reinforcement schedule will be released at start of game.

AI CAPABILITIES

Los 24s has the following capabilities at start of game.

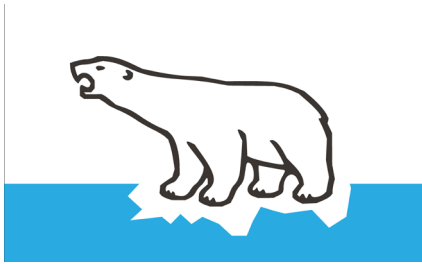
Category	Function group	Detail	Level
Cyber and cryptography	Cryptography	Hybrid cryptography	I
	Cryptoanalysis	Traffic analysis	I
	Cyber defense	Patch AI	I
	Cyber attack	AI zombies	I
Behavior & Interface	Language	NLP	I
	Behavioral analysis	Tracking	I
	Deep fakes	Deep fakes	I
	Mis-/Dis-information	AI Trolls	I
Commercial AI	Logistics and planning	Planned maintenance	I
	Manufacturing	AI CAD/CAM	I

Units

At start of game you have the following units,

Sago

Unit type	# of units	Details per unit	Max # AI Cap/unit
People	4	Armed gangmembers organized by neighborhood	1
Soft skinned vehicles	3	Unmarked vehicles to move material and people	2
Drones	2	Large number of small drones for patrolling & early warning	2
Boats	1	Speedboats used for smuggling	2



Arctic People's Liberation Front

The Arctic People's Liberation Front (APLF) seeks to protect the human rights of all indigenous people living in the Arctic. It operates across the arctic region of New Guigo, claiming to represent indigenous people in New Guigo's autonomous area, as well as those living in the arctic regions of Idaska and Korbash. APLF vision for the Arctic is one of preservation, conservation and self-determination. The APLF seeks to attain this vision through advocacy, civil disobedience and sabotage. They receive strong support from global civil society.

The APLF accuses Korbash and Idaska of pillaging the Arctics for their own gains. It is also greatly concerned about the expanding influence of Schiller Inc. in the Arctic region. Schiller Inc. controls various oil platforms and other mines in the area.

The APLF is well organised but has scarce access to weapons and other materiel. It does have access to off-the-shelf consumer electronics, such as drones, that can be weaponised.

Objectives

Create a sovereign state.

Factors that influence APLF's relation with other actors

Korbash Korbash controls roughly 30% of New Guigo and its natural resources. KOR's industry relies upon cheap oil and gas to fuel their economy. KOR increasingly investing in the exploration of natural resources. It re-

Team

APLF is only active in New Guigo.

Role	# of players	Description
Central Cell	3-4	Lead cell of the insurgent movement

The APLF generates the following income. It may increase or decrease by your actions.

Turn	Amount
Turn 1	5
Turn 2	5
Turn 3	5

lies upon Schiller Inc. for this. KOR and IDA contest each other's presence in the region, as well as the existence of an autonomous zone.

Kingdom of Idaska The APLF accuses IDA of foreign oppression of indigenous people in the arctic region. They claim that IDA is illegally exploiting arctic resources, leaving a trail of long-lasting destruction in its wake. The APLF actively seeks to sabotage and undermine IDA activities in the arctic. KOR and IDA contest each other's presence in the region, as well as

the existence of an autonomous zone.

International non-governmental organizations Though most INGOs denounce the APLF for its use of violence to achieve its goals, the APLF receives tacit approval from many concerned preservationists and liberal elites. Like the APLF, INGOs accuse KOR and IDA of displacing indigenous people and destroying wildlife in the pursuit of profit.

Schiller Inc. The APLF accuses Schiller Inc. of prioritizing profit over planet.



They blame the company for polluting the arctic region. APLF does not shy away from sabotage and actively using violence against Schiller Inc. sites and personnel.

ALGOR the APLF accuse ALGOR from benefitting from the natural resource extraction in the arctics. ALGOR has a small presence in New Guigo.

4L4K4Z4M hackers are sympathetic to APLF's cause. They are willing to support the APLF in the cyber domain.

AI Capabilities

The APLF has linkages to 4L4K4Z4M through which it sometimes receives AI capabilities.

The ALPF has some of its own AI capabilities deployed in New Guigo.

Units & reinforcement schedule

APLF have assets in New Guigo, see table below. Units will be reinforced over the three turns. A reinforcement schedule will be released at start of game.

AI CAPABILITIES

The APLF has the following capabilities at start of game.

Category	Function group	Detail	Level
Movement	Aerial movement	Navigation	I
	Ground movement	Mule	I
	Naval movement	Pilot	I
Behavior & Interface	Mis-/Dis-information	AI Trolls	I

Units

At start of game you have the following units,

New Guigo

Unit type	# of units	Details per unit	Max # AI Cap/unit
People	6	Armed resistance fighters	1
Soft skinned vehicles	3	Unmarked cars (4x4) owned by locals	2
Drones	2	Large number of small drones to observe fish and game	2
Boats	3	Fast fishing boats used by local population	2



4L4K4Z4M

4L4K4Z4M, pronounced ALAKAZAM, is a global hacker collective hellbent on challenging the existing world order through digital disruption, and making some money in the process. A hacker and/or cyber criminal belonging to 4L4K4Z4M is called an 4L4k, pronounced ALAK. In general, 4L4Ks are cyber anarchist, who believe that through digital disruption, the world can rid itself from government oppression. Governments and multinational corporation accuse 4L4K4Z4M of cyber terrorism fueled by greed. They strive for a world wherein all people are free and equal. To get there they require substantial amounts of money.

Team

4L4K4Z4M is only active in cyber space.

Role	# of players	Description
01010	3-4	the control node of Alakazam

4L4K4Z4M generates the following income. It may increase or decrease by your actions.

Turn	Amount
Turn 1	0
Turn 2	0
Turn 3	0

Objectives

Liberate the world wide web from government tyranny.

KOR of financing 4L4K4Z4M in the early 1990s, in order for it to steal state secrets from Idaska.

Factors that influence Los 24s' relation with other actors

Korbash (KOR) In the past years, the 4L4K4Z4M has actively sought to disrupt KOR society for financial gain. KOR recently put the hacker collective on its list of enemies. Critics accuse

Kingdom of Idaska (IDA) Because of its dominance in the field of artificial intelligence and IT makes it a prime target for 4L4K4Z4M and foreign adversaries.



International Non-Governmental Organizations (INGOs)

INGOs are often targeted by 4L4K4Z4M. Especially, those INGOs that have financial ties with either corporations or governments.

port from 4L4K4Z4M.

AI capabilities

4L4K4Z4M has access to a large number of AI capabilities, which they deploy for various reasons in cyber space.

Multinational corporations

4L4K4Z4M actively undermines **Schiller Inc.** and **ALGOR** business activities across the world.

Units

4L4K4Z4M has no units of its own.

Los 24s and 4L4K4Z4M have frequent business dealings. They support each other if it is mutually beneficial.

APLF The ALPF receives broad sup-

AI CAPABILITIES

4L4K4Z4M has the following capabilities at start of game.

Category	Function group	Detail	Level
Input and analysis	Sensing	Full EM	I
	Image capturing and processing	OD	I
	Predictive analytics	Integrated analysis	I
	Camouflage	Spoofing	I
	Network management	Distributed traffic/routing	I
Movement	Swarm	Hierarchical Coordination	I
	Aerial movement	Navigation	I
	Ground movement	Mule	I
	Naval movement	Pilot	I
Cyber and cryptography	Cryptography	Hybrid cryptography	I
	Cryptoanalysis	Traffic analysis	I
	Cyber defense	Patch AI	I
	Cyber attack	AI zombies	I
Behavior & Interface	Language	NLP	I
	Behavioral analysis	Tracking	I
	Deep fakes	Deep fakes	I
	Mis-/Dis-information	AI Trolls	I
Commercial AI	Urban	Traffic control	I
	Logistics and planning	Planned maintenance	I
	Production management	Robot workers	I
	Manufacturing	AI CAD/CAM	I
	AI development	AI Development tools	I



Who runs the game?

Game Control

About Game Control and Facilitator Teams

1. Who facilitates the game

The game is facilitated by Game Control and Facilitator teams. Each area of Operations has a facilitator team. Facilitator Teams support the game in their assigned Area of operations. They facilitate order resolution and make decisions regarding their respective Area of operations. Game control maintains oversight over the overall flow of the game and supports the three areas with adjudication and matter expertise. It acts as the ultimate decision making power in the game with regard to outcomes, rules and all other game related matters.

2. Facilitator team

The Facilitator Teams consists of three roles: Facilitator, Game Commander and Scribe.

2.a. Facilitator

The Facilitator controls the flow of the game. They engage with the active team when it announces an order. They ask questions for clarification and summarize the order. They invite other teams to provide arguments why the order is more or less likely to be successful. They structure the discussion, avoid spending too much time on a single order and cut repetitive arguments short. They keep the game moving forward, this includes ending arguments (in character or about realism). The Facilitator sets the target number and narrates the outcome, using arguments given during the debate.

2.b. Game Commander

The Game Commander supports the facilitator by minimizing disruption to the flow of the game. This they do by

keeping an eye on the players that are not actively engaged in giving or arguing an order. Especially if bilateral discussions erupt or when events lead to comments and/or discussion, the Game Commander steps in to ensure the Facilitator does not get distracted or drawn into arguments. The second role of the Game Commander is supporting the Facilitator in the narrative after an order has been executed.

2.c. Scribe

The Scribe informs Game Control and the other Scribes of relevant events that have taken place at their game, for example briefly describing each action and the outcome. This is both to ensure consistency between tables and to inform Game Control about global events. Similarly, the Scribe informs their Facilitator and Game Commander of key events from other areas when they are likely to affect their game, including the who, what and when of such events. If needed, the Scribe is available to liaise with Game Control, e.g. by requesting support or going over to Game Control.

3. Game Control

Game control consists of seven people, Information, R&D, General support

and four experts. The first three are located jointly at the Game Control table.

3.a. Information

This person functions as the central contact person for the Scribes. In addition, during the turn they prepare two or three slides highlighting the events that took place. These slides are used to kick off the next turn. In addition, Information keeps an eye on the Game What's App group. Moderating it and using the content (when relevant) in the mentioned slides.

3.b. R&D

R&D is performed by paying the person managing the R&D in the game. Players come to this person to perform the R&D activity. This person sets the target number for the R&D activity. In addition, they hand out and/or updates AI Capability cards if factions gain access to new AI Capabilities. This

person maintains a list of which parties have access to what AI Capabilities.

3.c. General support

This person prepares and hands-out the units and/or income to teams at the beginning of the turn. Companies can acquire investment cards from this person. This person updates the stability and support charts used to track these parameters during the game. In addition, they support the other team members in the Game Control team.

3.d. Experts

Game Control also includes four experts related to the game and its contents (e.g. military, trade and industry, legal, AI capabilities, etc.). They are available to answer questions of the Facilitator Teams and/or players and are the final arbiters on any game related issue.