



INDUSTRY-ACADEMIA FORUM  
TO UNCOVER THE POTENTIAL OF  
EMERGING ENABLING TECHNOLOGIES

# The Story of Theseus

## Visualising societal narratives on emerging technologies

Deliverable 3.2

VTT



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### Deliverable abstract

This report presents the visualisations of narratives that resulted from a futures workshops, held at the beginning of the FORGING project. The aim of the futures-oriented work in the FORGING was to bring new perspectives to the societal impacts of the emerging technologies by hosting a series of workshops with technology framework experts. The technologies’ societal impacts in the long term were in the focus, and an imaginative and holistic approach to societal change was encouraged. Working with technology framework experts from the industry and the academia, including social scientists with framework related expertise, we produced futures images and narratives for life in 2050 from the perspective of each technology framework.

The narratives and futures images were the end results of these workshops. They were turned into visualised stories to illustrate the societal possibilities of emerging technology in a narrative, easy-to-approach manner. The stories are brought together by a metanarrative of a logbook of the ship Theseus, sailing the seas of the Earth in 2050. Through joining the travels of Theseus we are learning about different imaginaries of ways of life, affected by novel technologies.

These narratives combine expert knowledge produced in the futures workshops with an artistic approach to presentation. Art is one way to bridge the gap between technological expertise, futures imaginaries, and the general public. The narratives presented in this deliverable are meant to prompt ideas of alternative possibilities and new questions regarding futures as we all continue to seek ways to make use of novel emerging technologies.

### Keywords

foresight, visualisation, images of the future, narrative foresight

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# 1. Introduction

This report presents the visualisations of narratives that resulted from futures workshops, held at the beginning of the FORGING project. The aim of the futures-oriented work in the FORGING was to bring new perspectives to the societal impacts of the emerging technologies. This initial step served as a foundation for all the later work of the project. Separate workshops were held for all the six technology frameworks (Human-centric solutions and human-machine-interaction, Bio-inspired technologies and smart materials, Real time-based digital twins and simulation, Cyber safe data transmission, storage, and analysis technologies, Artificial Intelligence and Technologies for energy efficiency and trustworthy autonomy). The technologies' societal impacts in the long term were in the focus, and an imaginative and holistic approach to societal change was encouraged. Working with technology framework experts from the industry and the academia, including social scientists with framework related expertise, we produced futures images and narratives for life in 2050 from the perspective of each technology framework.

We have documented the entire foresight process in Deliverable 3.1. This report presents the results of a collaborative endeavour with the FORGING research team and Mr. Samuel Putkonen, a visual artist and art educator, who has a background in science communication. The ideas in the narratives and images of the future produced by technology framework experts were visualised in a story format in order to make them accessible for wider audiences.

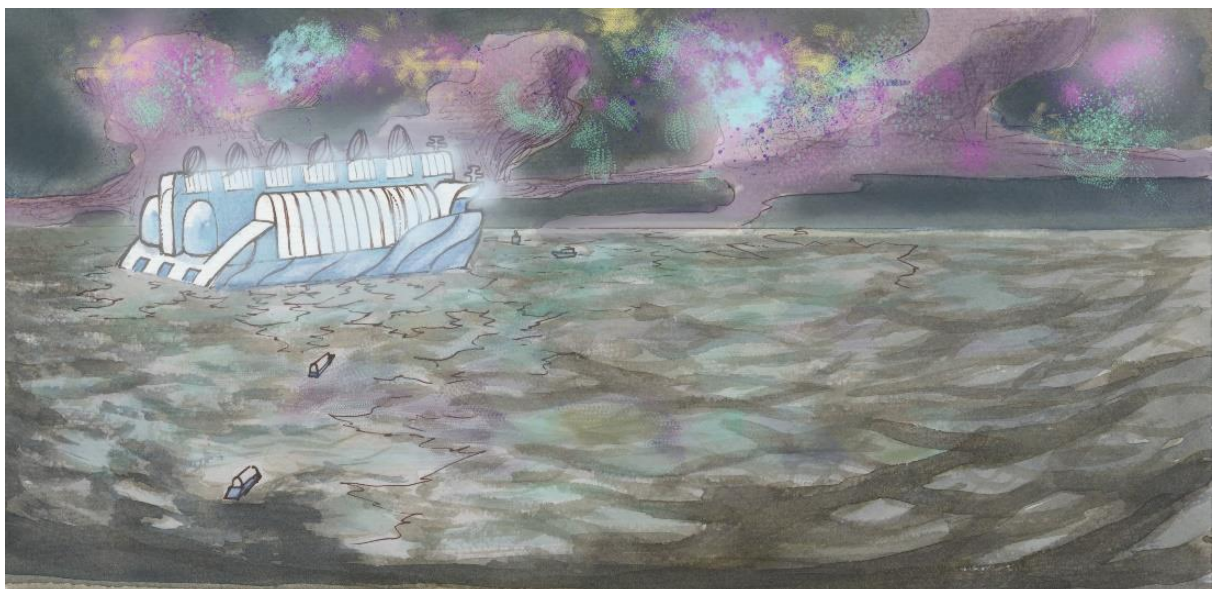


Figure 1. (image of a ship) Theseus sails the seas of the Earth in 2050

The ideas from the six workshops were turned into 12 small stories, brought together by a metanarrative of a logbook of the ship Theseus, sailing the seas of the Earth in 2050. Through joining the travels of Theseus we are learning about different imaginaries of ways of life, affected by novel technologies.

All stories are available in an interactive format on the FORGING web pages (<https://forging-hub.eu/theseus/>). In this Deliverable 3.2 we present the illustrated storylines. In the end of the document we have added exemplary screenshots from the webpage displaying the interface.

We invite you to immerse yourself in the future possibilities of technologies when they begin to impact our daily lives. We hope these narratives will prompt ideas of alternative possibilities, and new questions regarding futures as we all continue to seek ways to make use of novel emerging technologies.

## 2. Methodology: turning the workshops' outputs to a visualized story

In shaping technology futures, the convergence of narrative-based approaches and visual arts provides an extended platform for critical interpretation of possibilities and opportunities. Through combining storytelling with visual representation, our work captures the complex ideas expressed by futures workshops participants, fostering a sense of empathy, and envisioning possibilities and opportunities through the lens of hope.

All of the futures workshops ended in a narrative exercise. In some workshops, the last exercise was to write a story with a main character and a whole plotline that illustrated the ideas of the group. In the last two workshops, the exercise was to write a piece of news that could appear in a news outlet in 2050. Both of these exercises produced rich, imaginative, often funny, sad or hopeful narratives about how the future could shape like. In addition to the narratives, for refining the visualized story the so-called futures images produced in the workshops were used. These futures images contained of claims about the future, constituting a holistic image of how the world could look like in the year 2050. In the futures image exercise imagination was also a central tool for the participants.

To turn the workshop outcomes into a concise, visual story format the futures images, stories and news pieces were taken as a starting point. They were analyzed, and central themes appearing in them were recognized. Special attention was paid at the depictions of technologies and their impacts on lifestyles, values and well-being. To create a visual and appealing format of publishing, Samuel Putkonen was brought in as visual artist, as mentioned

in the introduction. With the formed team, ideation for an overarching story that could tie together several different elements from the material took place. Soon the idea of a scifi-like ship sailing the seas of the Earth after a near-apocalypse event was established. The idea was to have several characters in different positions to illuminate the different perspectives, and the ship as a story format also allowed for bringing in other types of societies, as the ship would be sailing to different harbours. This way the metaphor of the ship could be useful in picturing multiple realities that emerging technologies enable for societies.

In the next chapter, we will take the reader to a world of imagination, to a future with advanced technologies. We hope the stories are both enjoyable and thought-provoking, leading to new understandings, ideas and discussions about the future of society and emerging technologies.

### 3. The story of Theseus

Theseus sails the seas of the Earth, year 2050. The ship holds a small society in it: democratic government and different societal groups. The people on board mostly still remember what it was like to live on the Continent before they stepped aboard the ship: the environmental catastrophes, desperate immigrant groups and failing agricultural efforts. After a major solar flare incident in 2035 that destroyed much of the electric systems, the whole continent fell into despair and they saw the ship as a better alternative...

Now, in 2050, the global internet systems are still down, and only local systems that don't have global coverage exist, as the satellites are fried. The ship Theseus is sailing the (larger than before) seas of the planet, learning about what is going on at different parts of it. Human communities in different locations have had to re-create their future independently, without the global commercial system and media coverage the older residents of the ship had grown used to in their youth.

In the following we present some of the key characters living onboard the Theseus, whom you will encounter in the stories:

**Ilmari** is the captain of Theseus. He has a pre-flare background in marine mechanics, and has been able to use his expertise in tending to the ship. He is firm in handling business, but always warm and empathetic towards his fellow humans – some of the reasons he was elected as the captain of Theseus ten years into the journey. Ilmari takes his responsibilities seriously, and spends a big portion of his time in his office or with the other passengers scouting their joys and fears. He also enjoys the company of his elderly mother, Ilona, with whom he had too little time to spend before boarding Theseus.

**Ilona** is a 76-years-old lady. Earlier in her life, she spent 10 years working for different commercial firms as a marketing specialist, gaining a comfortable standard of living. In her old life, she travelled the world by plane, exploring the globe from tropical beaches to northern cities. After the flare, she was rescued by her son Ilmari to live on Theseus. She misses her old life and finds solace in growing her own plants in her cabin. One of the biggest joys of her retirement is the neighbour's young boy, Theo, who she shares her passion for plants with.

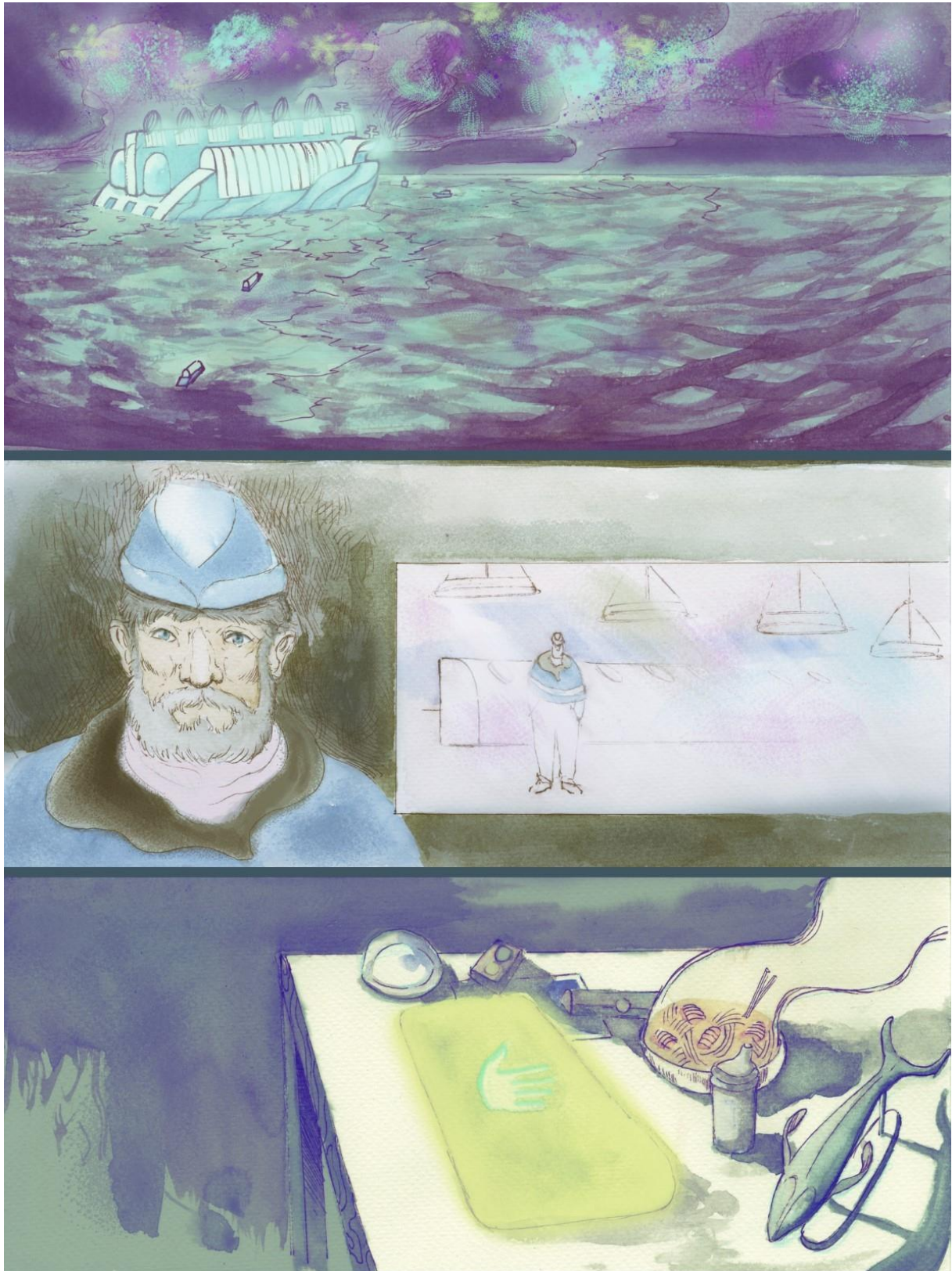
**Theo** is an 11-year-old who has been born in the ship. He has befriended the family's elderly neighbor, Ilona, who likes to play with him and tell him stories of the old world. Theo thinks Ilona might know everything there is to know, and she has probably been to every corner of the Old World. Theo finds school often boring but is eager to learn everything he can about the plants growing on land and designed in the ship's Plant Lab.



**Priscilla**, the Head of Passenger Welfare at Theseus, is a 46-year-old who has spent her youth as a nurse, and found rescue at Theseus as it stopped at her town two years after The Flare. The chaos after the flare, when food was scarce and trust towards fellow citizens suddenly declining, has left a mark on her worldview, and she is now determined to keep the ships residents in ample food and adequate resources to avoid the kind of havoc from ever happening in the ship. She is also eager to learn from all of the current societies of the Earth about their models of social welfare and economics. She is the mother of Theo.

### 3.1. The Logbook of Theseus

Date: 3/5/2050 Written by: Captain of Theseus, Ilmari



The sky is bright with all sorts of colours tonight. In my youth, we would have called this event “fireworks”, and some still do. In truth, however, nothing is fired but laser lights pointed to the sky. The effect is still there: celebration.

Fifteen long years ago, I, among a group of other survivors, stepped aboard this ship for the first time. That is something to celebrate, to be sure. We found a vessel for our dreams, a brand new ocean ship installed with the newest technology and enough room to house a large city of people. We made it our home and built it to be what it is today. Theseus, a sovereign nation of the oceans, a haven of well-being. I was happy my education as a marine technology engineer could be of so much use in the new nation, and being elected as a captain was an honor I could not have imagined before.

What preceded the birth of Theseus can be called an apocalypse, I suppose. I will try to explain to the best of my understanding and memory, although the details of the catastrophe are for the wiser to explain.

It was the flare, that some people had feared to be coming and attempted to warn the rest of us, but to no help. When the flare came, we were mostly helpless. The World Wide Web existed no longer, and most computers were fried. I was coming to work in the morning, but the harbour gates no longer recognized my face and didn't open. The back up system didn't work either, and our calls for help didn't go through. Rather soon we found the city in chaos. All that I could do in that situation, a young marine tech engineer as I was, was to run grab my mother from her workplace downtown, climb over the harbour fence with her and get aboard a ship that was about to sail by evening fall.

The first weeks of sailing, we worked hard to re-establish communication systems. Once everything aboard the ship seemed to be working, we found out just how large the damage had been, as next to no one answered our calls and communication attempts. We made a decision to stop at every harbour on our way and pick up as many people as we could possibly house. From the beginning, a new type of democracy was created, one that suited the spirit of Theseus. Technological advances were given priority, as we saw that it was the only way to build a good life for the new nation that was forming. And so, Theseus came to be.

Fifteen years on this ship, with all the advances we have been able to make, is a great feast, something to be celebrated and remembered by future generations as well. To ensure the memory will remain, I have decided to create this logbook. I have designed it with a biofilm cover that will open to only the bioprints coded to it, so that it can be written in freely and the contents can't get into the wrong hands. Tomorrow, I will gift this logbook to the person most deserving to preserve the memories of Theseus, my mother Ilona.

Outside my window, the sky is still bright with green, red and yellow. Perhaps I will seal this book and go join the celebrations on the deck.

Date: 5/5/2050 Written by: Ilona



Yesterday my dear son placed this logbook in my hands and informed me that its bioprint cover only responds to his own and my 76-year-old touch from now on. I should document our way of life here in Theseus, he said.

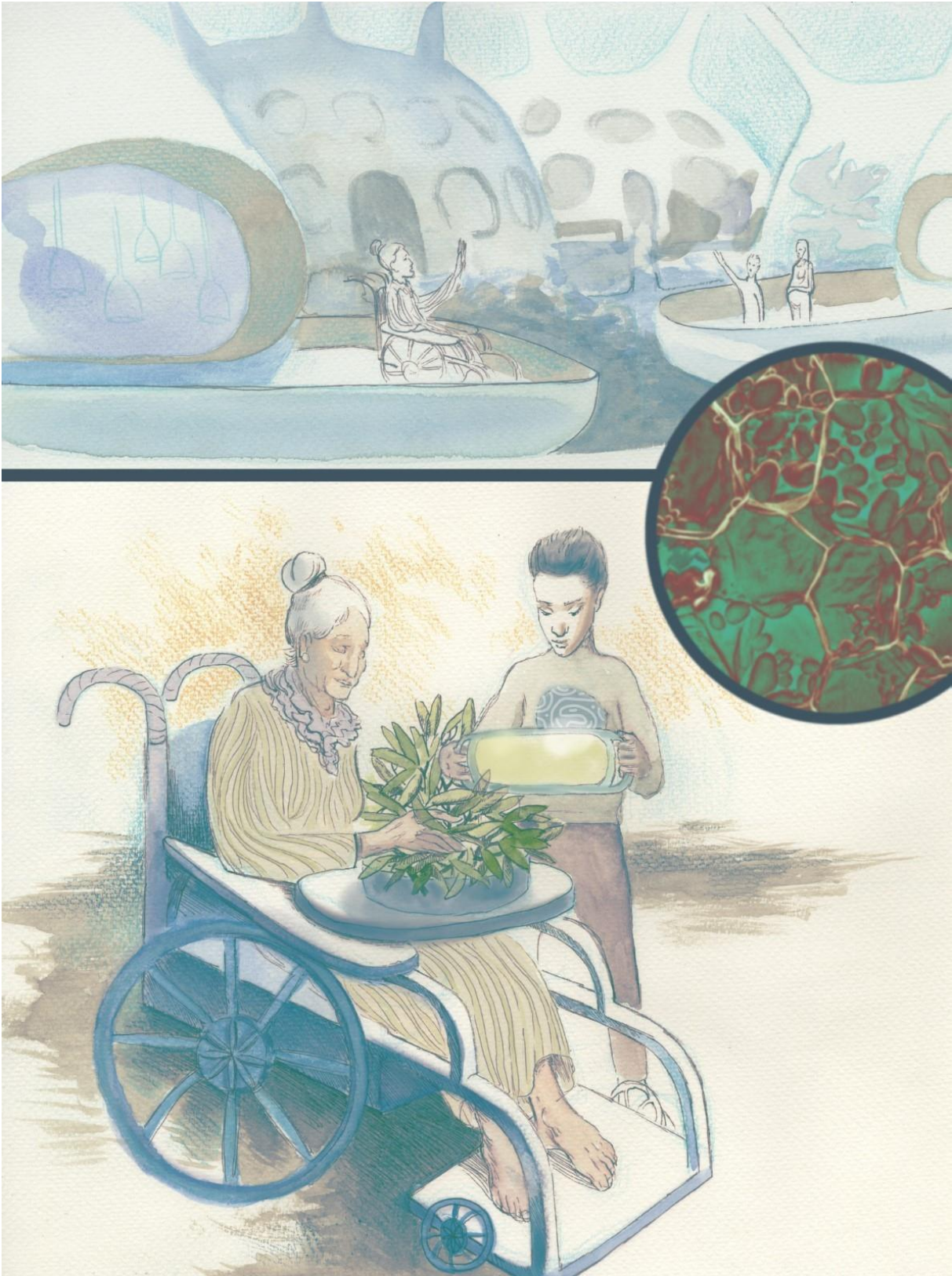
I suppose he already updated you on the flare, and I would rather not go back to that memory. Instead, let me start from the life before, gorgeous as it was. I was a younger woman back then, and oh did I enjoy the joys of the old world! Working in marketing was profitable back then, and I was able to eat whatever I wanted, drink good wines and travel the world by airplanes. Airplanes, if they are unfamiliar to a future reader, were machines built to fly across the skies for very long distances. They were fueled by oil found in the ground, which I suppose seems very old-fashioned nowadays. Traveling the world high-speed is old-fashioned also, and Theseus with its slow swimming through the oceans is the closest thing we have left. As I sit in my room and look out the digital window to the never-ending waves, I still sometimes imagine I am a younger woman on her great adventures to surf and scuba dive the sea instead of living on it.

Even in my longing I do appreciate Theseus. It was my son that saved my life and brought me to this boat, and he has played a greater role than myself in building the community, or nation as he calls it. They have succeeded in creating a safe haven for us to keep on living, creating and innovating. The conspicuous overconsumption of my youth is gone, but technological advancements made before and even after the creation of Theseus have allowed us a certain level of comfort, safety and even entertainment. One special joy is also still left to me: watching my plants grow. I was never a nature person in my old life, but in this new one I couldn't imagine living without green things around me.

I have quite comfortable home onboard. The scientists have made great advancements in material sciences since my youth, and using a new type of bio-carbon-based material they have been able to build homes that feel like nests in the hull of the ship, shining light according to natural cycles and displaying the outside world to inner homes through virtual windows so good that it would be impossible to tell them apart from real windows, at least with old eyes like mine. The homes are also shock resistant and built as separate structures from the ship's hull to prevent swinging side to side as the ocean does. Even with my old-fashioned wheelchair it is easy to get around and I have help, virtual, robotic or human, available at all times.

It feels good to tell the story. Welcome onboard, you mystery reader from the future.

Date: 6/5/2050 Written by: Ilona



Today was a good day, as my dear neighbour Theo had received a couple of new specimens from the Plant Lab and I was lucky enough to be the first person he ran to with his precious green things. Theo lives next door with his mother Priscilla. He has been born and raised in Theseus and has never lived on land in his life. He is already eleven years old and has set foot on land only a couple of times to visit some especially interesting and safe harbours where the ship has spent a little more time. Even so, he has developed a keen interest in the green things growing in Theseus and covering the lands.

The Plant Lab scientists have been working hard on structuring the DNA of plants to better fit needs of Theseus. Evolution has not prepared to keep life alive on board a ship without all the fine things of a natural ecosystem, and yet they have managed to grow food and keep the air clean on the ship, thanks to technological advances.

Theo brought today two samples and his microscopic screen. Through it, we could marvel together on the cell structure the scientists have recently improved to grow a new bean species incredibly fast and efficiently. The plant absorbs nutrients from the air around it in an astonishing efficiency, and we could see how the carbon dioxide was turned into crucial building blocks of the plant. Theo drew what we saw with the microscopic classes and plans to educate his school class tomorrow about DNA structure of the beans.

We were so caught up in the marvel of the plants that I failed to send Theo home to his mother in time for supper! Eventually, Priscilla turned up at my door with supper for Theo, which contained the same new bean species we were studying. She had suspected we might be caught up in some new discovery, as this was not the very first time we had lost track of time.

Date: 8/5/2050 Written by: Ilona





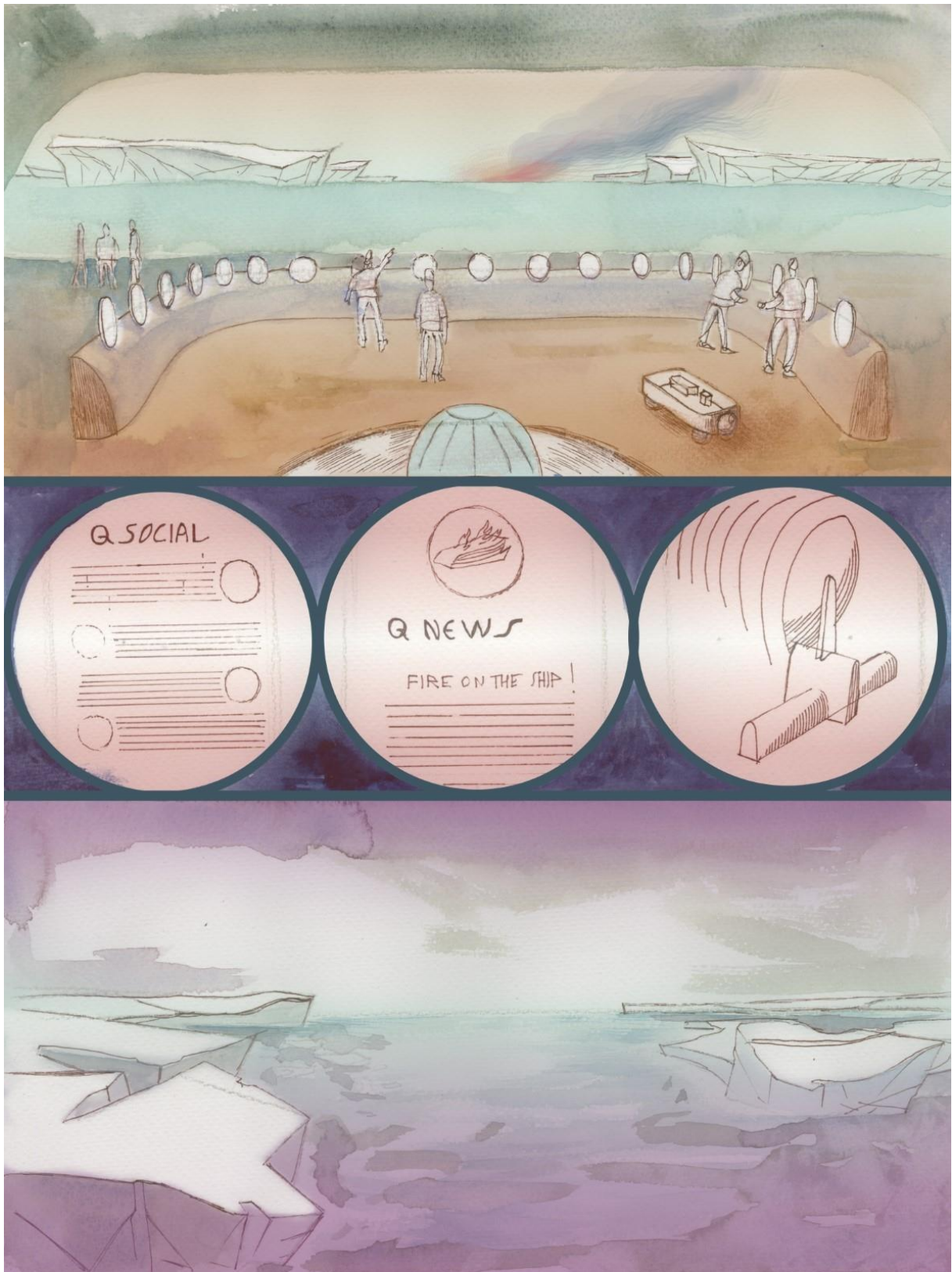
Priscilla had to work late today, so I took Theo for dinner in the food court. After not visiting for a couple of weeks the place had a fresh appeal to it. It is big enough to house a quarter of all the ship's residents at once, yet it has been built with advanced noise cancelling materials that makes it pleasant to be in even when crowded. There are also huts of different sizes to sit in. The best feature of all is the food grown in there, so that you can enjoy your meal and marvel at new plants all at the same time.

At the door of the food court, we were welcomed by an herbalist android who was very polite. It wanted to scan us to get insights about our health and biological data. When it scanned me, it felt like standing in the sun for a couple of seconds and all sorts of numbers and data slashed in the android's screen. It gave me a few good tips on exercise as well, and recommended I eat a custom-made vegetable stew for dinner. Most of the food here is composed of vegetables, although other types of protein are also incubated in tanks for special occasions.

We found a place to sit next to a plant species that we were unfamiliar with. Luckily all the growing tanks in the food court contain educational modules for anyone who is interested, and we could use the waiting time to find out how exactly the plant grows its fruits that are exceptionally full of nutrients. We also studied the leaves that were rather small and resilient for dryness. Such leaves exist in the natural world as well, but for this plant they had been engineered in the ship. All this was very fascinating to us, and we decided to ask for a small sample to take with us for further examination with the microscopic screen.

The drone that delivered our food took the request and informed us that we could pick up an educational sample at the exit of the food court. I have never seen Theo eat as fast as after hearing that promise! The food was delicious, I must say. Apparently, the ship's kitchen knows my taste almost as well as my health.

Date 11/5/2050 Written by: Ilona and Ilmari, Captain of Theseus



Today I had supper with my son Ilmari in the food court. He had some quite dramatic news that would be quite fitting to be reported on this log. Ilmari had taken notes for his own diary, so I asked him to share those in here. So, here are Ilmari's records of this day:

*Problems onboard today. We received an emergency signal from another ship at 06:24, notifying us of an incident of being stuck in ice in the high north region. I steered Theseus to assist in the emergency, as all our data systems indicated a ship in distress was observed in the arctic area. However, as we drew closer, I observed several disturbing details in the situation. The other ship asked for permission to remotely access Theseus' SPOP (Ship's Personal Owned Portfolio), and during the procedure, Theseus' SPOP alerted for unauthorized access, indicating that the other ship was not part of the distributed network formed of trusted ships. The other ship asked to override the SPOP, but at this stage I realised we were being targeted by the data pirates! They had been able to stage a very realistic projection onto our radars, with the aim to access Theseus' data when connecting with the "ship" for being able to help. Based on my decision to decline the override, the distributed network of trusted ships was informed of this event and we received notification of potential data breach. The distributed network enacted appropriate counter measures to protect Theseus, including backup. So, I believe we were able to pull out from the situation early enough.*

This was the first time Theseus encountered the pirates, although they have been increasingly active in targeting sea farers lately. Ilmari said that thanks to the global protective distributed network we belong to, it seems we were left shaken but unhurt. Still, for some reason, I feel uneasy...

Date: 12/5/2050 Written by: Ilona



Theseus has docked to new place. I personally have not had the pleasure to see it except for peeking through my window. I heard great things from Priscilla, though, as she was taken for a virtual tour to the city. She told me the tour included all the city's important sites, including historical buildings that don't even exist anymore in the physical world! After the virtual tour, Priscilla asked for a chance to visit the place physically. At first, the mayor of the foreign city was almost offended that she was not happy with the virtual tour. She then explained that the citizens of the city rarely leave their homes anymore, as there is no need. They have exercise machines at home to use if they want to, all their needs are met by the robots running the infrastructures of the city, and they can visit all important places virtually from the safety and comfort of their own homes at any time. Imagine! Eventually, the mayor proposed to take a few children of Theseus for a physical school trip to the wilderness, that was taking place the very next day. Apparently, it is one of the rare occurrences when the city's residents come into contact with physical nature anymore.

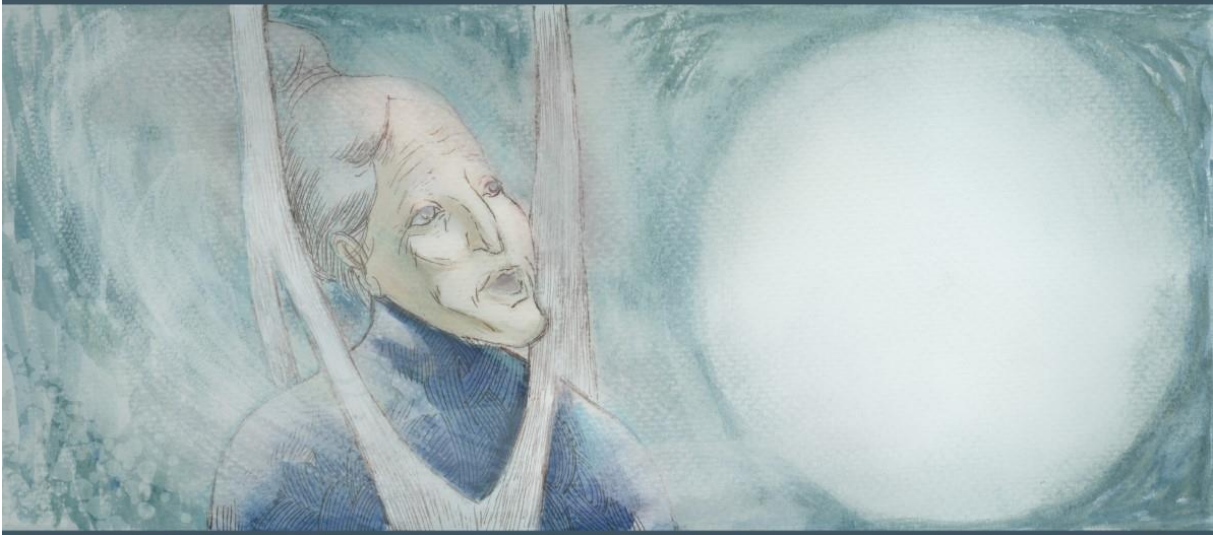
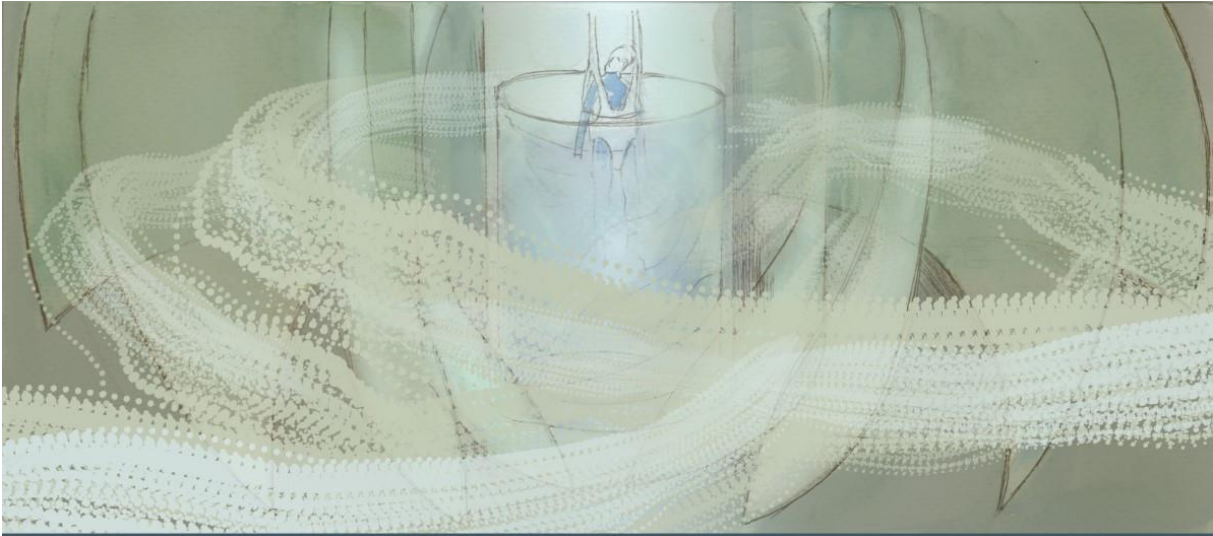
Theo was admitted a place on the trip, and he came back very excited. I wanted to give him a chance to tell about the trip with his own words, so here are his notes of the trip:

*It was EXCITING! We were transported by a real rocket from the city! One of the local kids, a very funny boy who I was able to understand with a translator AI, sat next to me in the rocket. He told me it was the first time for him to leave his hometown physically, although he had had virtual trips before. He was so scared he was giggling almost the whole way! Luckily, once we arrived, we were given exo-skeletons that provided a circle of safety from all the dangers of the jungle.*

*With the exo-skeletons we were able to slide through the jungle (Ilona allowed me to attach a drawing). ALL THE PLANTS! You can not imagine! I was so sad I didn't have my microscopic screen with me. Luckily, we had an AR (added reality) screen telling us facts about the environment.*

*Despite the plants, the most exciting part of the trip was THE PUMA! We were able to get really close thanks to the exo-skeletons, and the AR told us the puma was sniffing because it smelled in the air a group of rabbits that were there one hour ago. I could not help my excitement, and guess what? The teacher gave me a temporary smell sensor enhancement, a small device to place on my nose, and I could smell exactly like the puma for a while! I could almost see the rabbits the puma was smelling for, as well as a group of monkeys in the tree branches and birds flying and hopping among the leaves! It was the best moment of my life! Maybe one day I will be a scientist and get to smell new knowledge all the time.*

Date: 16/5/2050 Written by: Ilona



Aboard the Theseus, I've grown used to playing around with virtual reality headsets and immersed myself into the metaverse, but today something truly remarkable has happened! This time, the combination of my virtual avatars with the recording of brain activity has enabled the thought-based control of all sorts of robots and other equipment. So not only I am no longer restricted to the confines of my wheelchair in the metaverse, but I also truly experience a sense of flow and empowerment as if I had been reborn into a dimension where anything is possible.

To achieve this level of freedom in the virtual world, all I had to do was get myself scanned by the ship's new Virtuality Scanner, the newest advance of the virtual reality labs. I rolled my wheelchair into the platform, all sorts of lights went on around me, and the device got a more precise picture of me than perhaps even myself. Immediately after, I was able to walk in the virtual realm in a way that no avatar has provided me so far. It was almost as if I was really able to get up from my wheelchair and take a long walk in the beach again, with the wind in my hair and the smell of salt in the air.

Aboard the ship, the virtual avatar grants me access to different tools and utilities, from advanced mobility aids to augmented reality interfaces that are enhancing my senses and cognitive abilities. With a simple thought command, I can now summon a holographic interface to assist me in my duties as the ship's official chronicler, organising data and analysing information with speed and efficiency.

I will also be able to connect with the ship's crew on a deeper level. Through a network of neural interfaces, I can now communicate with my fellow residents with nothing more than a thought. Messages are transmitted instantaneously, as if they are all connected by a collective consciousness, harmoniously united around the same sense of purpose.

Holographic displays now project complex diagrams and charts, allowing me to analyse information and make decisions more confidently. What used to require hours of work now will take me a few minutes only, leaving me with time to do what I really treasure the most – to enjoy the company of my fellow residents and record the stories of the experiences we share along our common journey aboard the Theseus!

Date: 17/5/2050 Written by: Ilona and Ilmari, Captain of Theseus





It has been quite a few days! As my dear son, the hero of Theseus, has been in the hot center of the events, I will let him describe them instead of trying to recall our conversations myself. So following are Ilmari's records of the events of the last few days.

*The events started as the ship's engines started malfunctioning. I scanned the nearby towns with the Locator, and was able to find a port located in an ancient fishing village. The place was supposedly specialized in shipping industry and one of the most advanced centres in digital sensing, which helps monitoring ship operations and performance. Approaching the port, I spotted a repair shop with a few locals hanging by. They did not answer my calls for digital contact, so I had to disembark to talk to them.*

*The locals explained to me that the repair shop was closed. Apparently, they have a governance system called Government 5.0, which was malfunctioning at the moment after it had been hacked in a cyber-attack. The functions of the repair shop were automated and linked to the same system, and therefore it was out of order at the moment.*

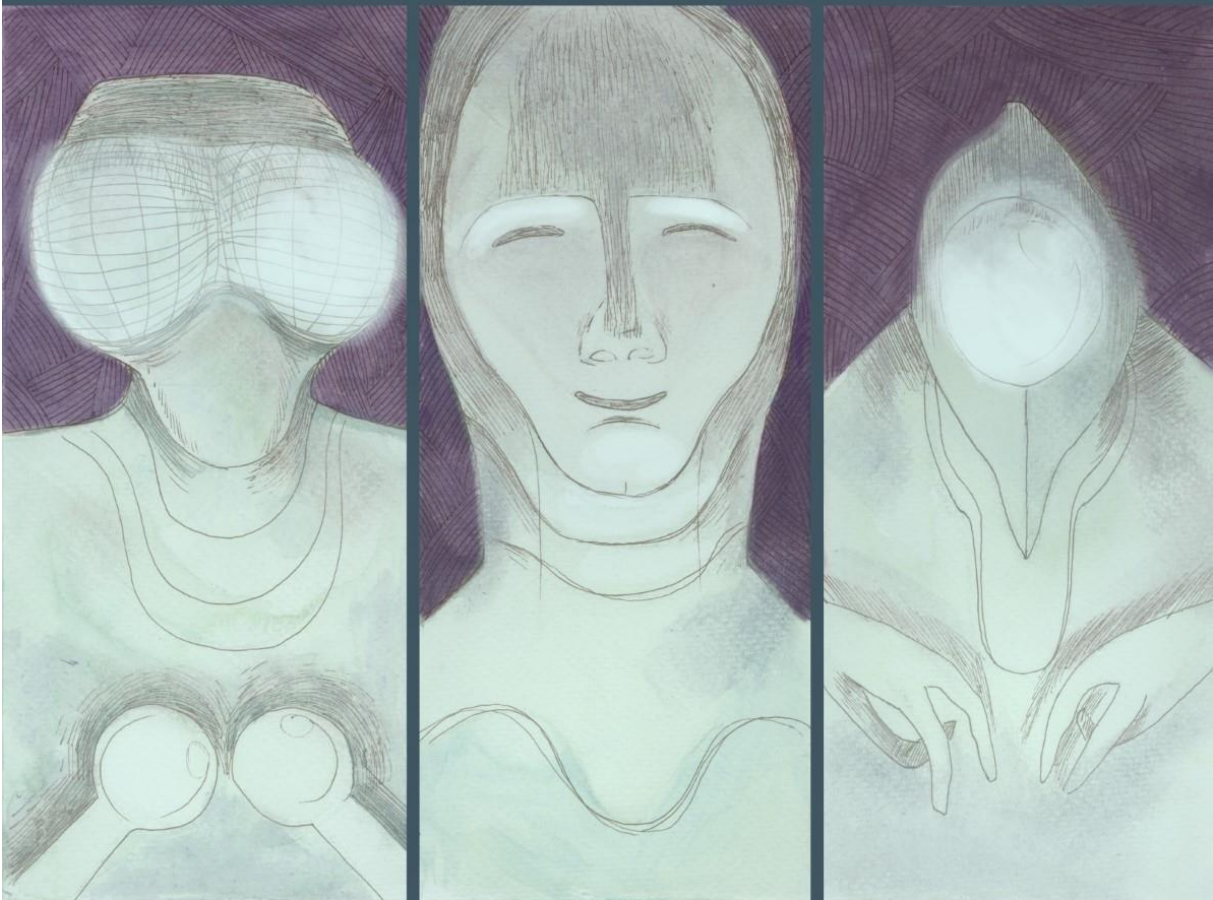
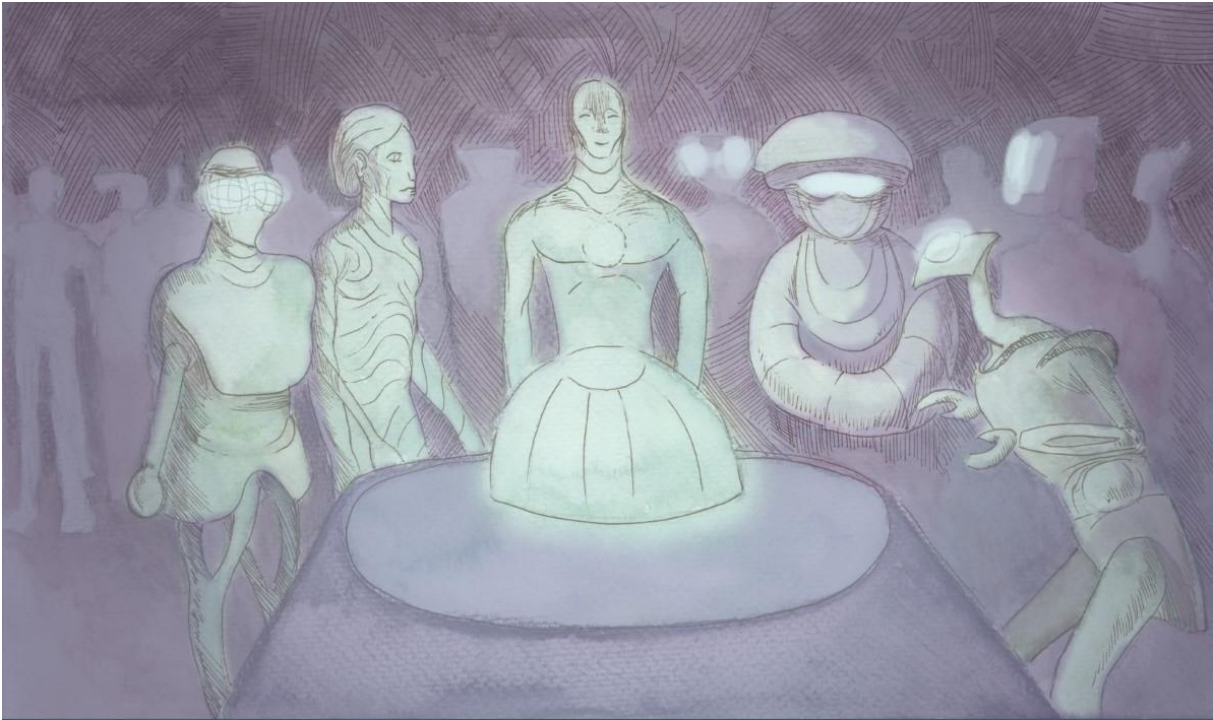
*These friendly people invited me to share a meal, and they kept on talking about their system. They told me that ever since the village had fully adopted Government 5.0, things had been perhaps a bit too tranquil in the village. They told that fishing had already for a long time been heavily regulated, and since AI started to fully take control of manufacturing and all the menial tasks, they had had difficulties in figuring out what to do with their lives. The change had been hardest with those who still remember the old days and miss their daily work in the port.*

*After the meal we had reached the decision that they should try and help fix the engine of Theseus the old way – manually. They were excited as they rushed to the engines, but it soon turned out their skills were rusty and the technology used in Theseus too advanced for their skills. It seemed that we were stuck after all.*

*As a captain it was my duty to stay in land and try to find a solution to the situation, and I kept talking with the locals. Soon I found out that the very men I was talking with had been part of the hacking incident as part of a resistant movement that was trying to overthrow the Government 5.0. The villagers were very excited, as fighting against a system that they feel has taken away meaning from their lives had given them back a feeling of agency. They had managed to halt several of the systems run by the machines.*

*Soon the Government 5.0 presented its resilience for cyber-attacks, and was able to get itself back into operation after only a few days of being down. I doubt the locals had been able to achieve any real change, even though they seemed to feel some feeling of accomplishment. I didn't voice my feelings with the locals, but I was secretly happy when Theseus was repaired and we got to move on from the place.*

Date: 18/5/2050 Written by: Ilona



As the Theseus sails through the seas, its inhabitants often find comfort in the rediscovery of debate. In true democratic spirit ideas bloom, and decisions about the governance of their collective life are made together. Today, a difficult issue is under debate, one that challenges the very boundaries of what it means to be human in a society truly intertwined with artificial intelligence, where both humans and androids assemble at a council, and both are granted voting rights.

Today, in the bustling room of the council, different voices and different arguments echoed as the topic of android design principles took the stage. Should androids be clearly distinguishable from humans? This question, placed under vote as the "recognisable act", opened up a fiery debate amongst us as residents of Theseus, with each taking turns advocating for our vision of the future. The tension was palpable.

My dear neighbour Pricilla has strong memories of older times, almost like myself. Her conceptions are still strongly rooted in her own assumptions of what it means to be human, and how often much of that was under direct threat by the uncontrolled development of technology. In the dimly lit room where the council took place, Priscilla stood her ground, in a testament to the resilience of the human spirit, because she had witnessed the blurring of old boundaries between body and machine. Her words echoed across the room, mixing with the glow of holographic displays.

"We are more than machines", she argued, her voice rising as she uttered each word. "If we now live the times where machines imitate life itself, then what is left of the humanity that defines us and sets us apart?" The question penetrated the residents' minds and souls and suddenly there was an overwhelming silence. Everyone was hanging on Priscilla's words: "We marvel at the wonders of innovation and that is a thing of beauty, but we are creatures of emotion, empathy and endless creativity – and that is what sets us apart!"

In the hearts and minds of residents lingered the lessons learned in the aftermath of the flare. They, I mean, we had lived through chaos and devastation that followed, but we had also seen the resilience of people and the transformative power of technological ingenuity.

The voting concluded with a compromise. The androids – some immediately recognisable in their metallic frame, some undistinguishable because of their synthetic skin layers, would not conceal their artificial nature, but no explicit ban on human-like looks would be enforced. This can be seen as a symbol of transparency, responsibility and honesty, going hand in hand with a recognition that they possess the capacity for co-creation, collaboration and companionship, acceptable for both humans and androids taking the vote.

Date 20/05 Written by: Ilona



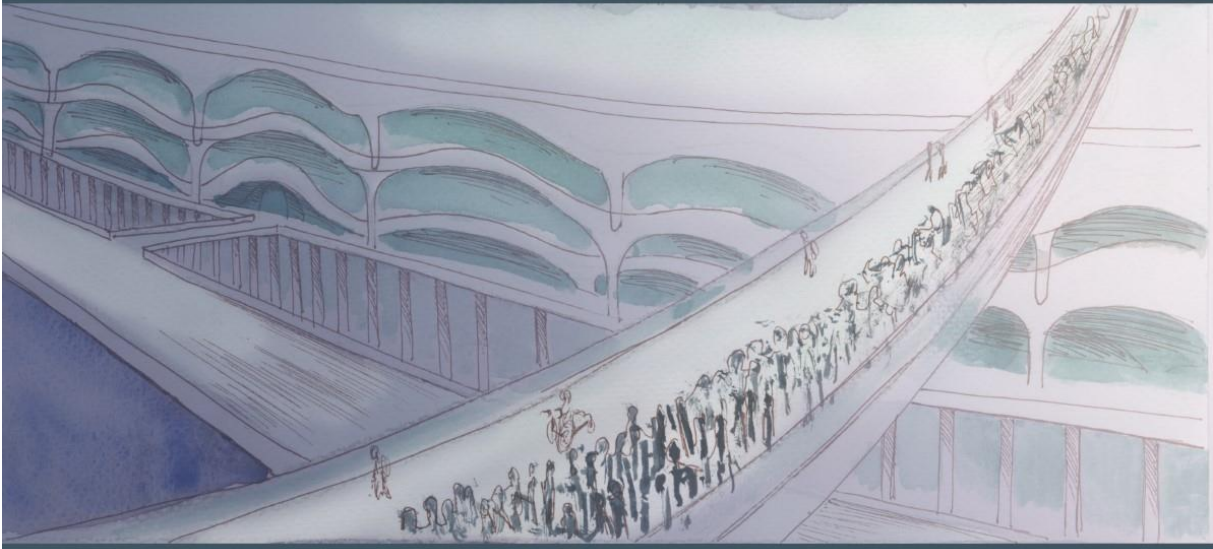
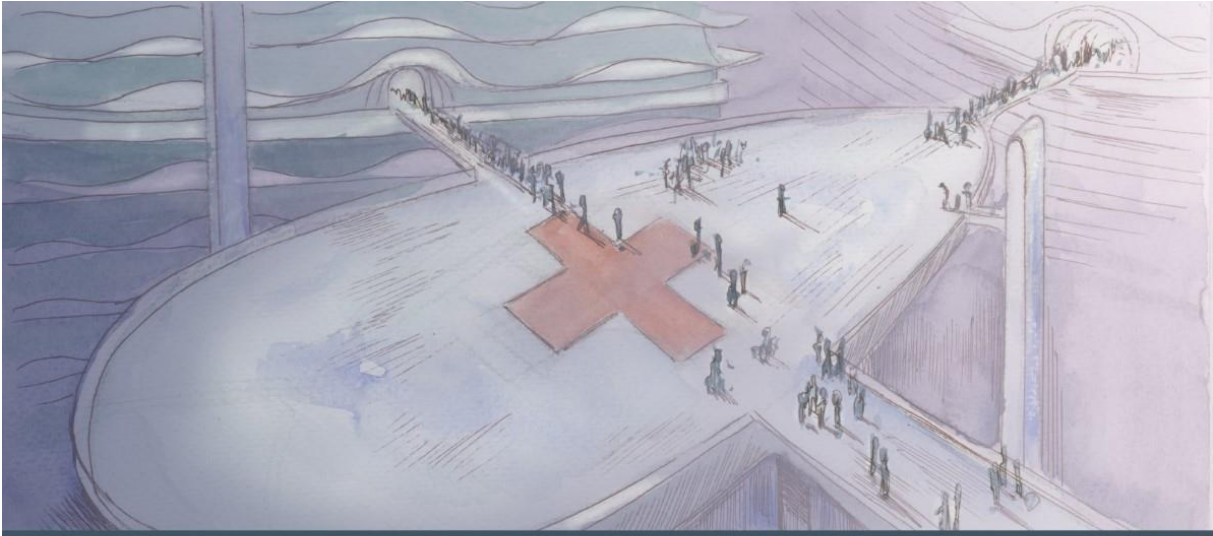
I hope my notes will be captured in this Logbook... Everything has been quite chaotic today. First thing in the morning we were all summoned to a physical meeting at the bow of the ship. This was unprecedented, we typically communicate fluidly over our AI enabled information systems, and it is very rare to have all the residents gather in one place.

Ilmari who had called the meeting explained that the previous night, while he had been awake due to an urgent maintenance co-design operation with AI systems, a sudden system alarm had taken place. The alert message informed Ilmari that one of the AI counsellors, a newcomer after the incident with the data pirates, had launched a vote for temporary control to take over for the AI operator, meaning that AI would override all the normal democratic decision-making processes involving humans. The other AI operators would not normally allow anything like this, but obviously there was something wrong with the system and the vote was happening in the middle of the night! Realising the threat this situation posed, Ilmari managed to lounge an emergency shut down of the AI operators. As result, the shutdown of the AI operators is causing a serious imbalance in the ship's functionality. Ilmari, as the Captain of the ship, urged us to remain calm and reassured us that the ship's basic functions would not require AI, but fully functional backup systems were in place, they just were not as sophisticated and smoothly functioning as we had been accustomed to.

We all residents felt a little nervous about how we would manage our lives without the AI systems that we'd grown to rely on. Initially I still felt rather calm, knowing that I would be able to carry on my life for a few days quite well even without the help of those handy AI assistants. However, I heard snippets of discussions on the way returning to our cabins. Some of my fellow residents were really starting to panic. Especially those living on the lower floors of Theseus were really concerned about the lighting that had not come on in the morning, along with other practical concerns.

So, to sum up, nothing really has worked that well today. I could not have imagined how much we actually are dependent on our AI systems! Well, perhaps this is a good occasion to try out a real digital retreat. And to be honest, some of this has been quite pleasant, cooking tea manually, discussing with Theo whom I invited to visit my apartment, analysing our plants with a vintage microscope I have as a souvenir from the old days... I just hope this is a temporary hiccup as real problems will start manifesting if we cannot get the systems running soon.

Date 27/05. Written by: Ilona



Reparations of the AI systems have progressed a lot more slowly than I had anticipated. It turned out the infiltration of the malicious software was broader than it first appeared, and Theseus needed a completely new AI operator system. But today was a day of celebration, as the new system was finally turned on! People were so happy, as it had been a difficult week for us all.

In retrospect, this week without AI has taught me quite a lot about our community here on the ship. For instance, as in the past our AI so smoothly allocated us with different kinds of services, based on different variables, including wealth, age, and so forth, I had not fully realised how privileged a position I held in this community. Like a few days ago, when my old ailing hip started to act up again, instead of calling my dear doctor for an appointment I had to join a long line, sprawling from the upper deck towards the medical station. It took hours just to get to the information desk where I could try to make a booking. On the way, I saw a lady passing by the line, vocally protesting and in shock as she had been denied access to previous health benefits due to a lack of essential data about social status. Many others seemed to be equally upset as sudden changes in treatment prioritization had taken them by surprise.

This experience, although admittedly annoying, has made me realize that there is still much to be done to make Theseus a good home for all its inhabitants. Now that we are back to normal, I will indeed make it a priority to try to find ways to make the ship a more equitable and humane society for all!

Date 30/05/2025. Written by: Ilona





What a day! The whole ship awoke in the morning to the sound of the fire alarm. And true it was, the ship had caught fire that had already destroyed a part of the stern, exactly where the food court is, or was... There was no panic, as the living premises of the ship are built of fire-resistant materials. Still, many were emotionally attached to our food court with its greenery and cosy nooks for hanging out. Luckily, our food systems are created to be very resilient, so losing the greenery temporarily will not jeopardise the life on the ship.

It still came as a shock to learn that the fire was not an accident but had been started by our fellow residents. As I wrote in my previous log posting, I have become aware of the discontent of some of the people. Our small society is not perfect, and some have ended up in quite unfortunate circumstances, especially after the AI problems started to mount... but still, to start a fire on the ship! I hope this event will finally awaken our steering committee to improve the social aspects of our ship.

Anyhow, I and Theo of course went immediately to investigate the fire scene. We had our own interests, as we wanted to make sure we had been able to collect all specimens to our collections and to salvage any remaining plants from the site. We had to hide from the over vigilant security systems but were able to reach the food court. And there we were, standing next to the big windows, lit from the other side by the fire, and on the other side by the rising sun! I must confess that I felt exhilarated! I knew Theo was thinking the same thing as me, what an opportunity! The old food court was wonderful, but somehow the metal encasings and big windows felt a bit outdated and out of place in comparison to what we had been envisioning already for some time. The whole food court could be organic, made from biomaterials and all of us ship residents could take part in cultivating the plants! As a symbol of our vision, we planted a small seed from our collections. We knew we had a lot of lobbying ahead of us to convince our fellow ship residents that this co-creative approach, combining the use of biomaterials with community gardening can provide multifaceted benefits for the future of Theseus!

We returned to our cabins and on the way talked about the possibilities of planting novel seeds and introducing a whole rainforest area to the stern. I cannot remember when I was so excited the last time! In the evening, I received a call from Theo who had not resisted going back to the burned food court. A big smile was on his face when his hologram pointed to a small leaf arising from the floor. The seed we had planted in the morning had already started to grow.

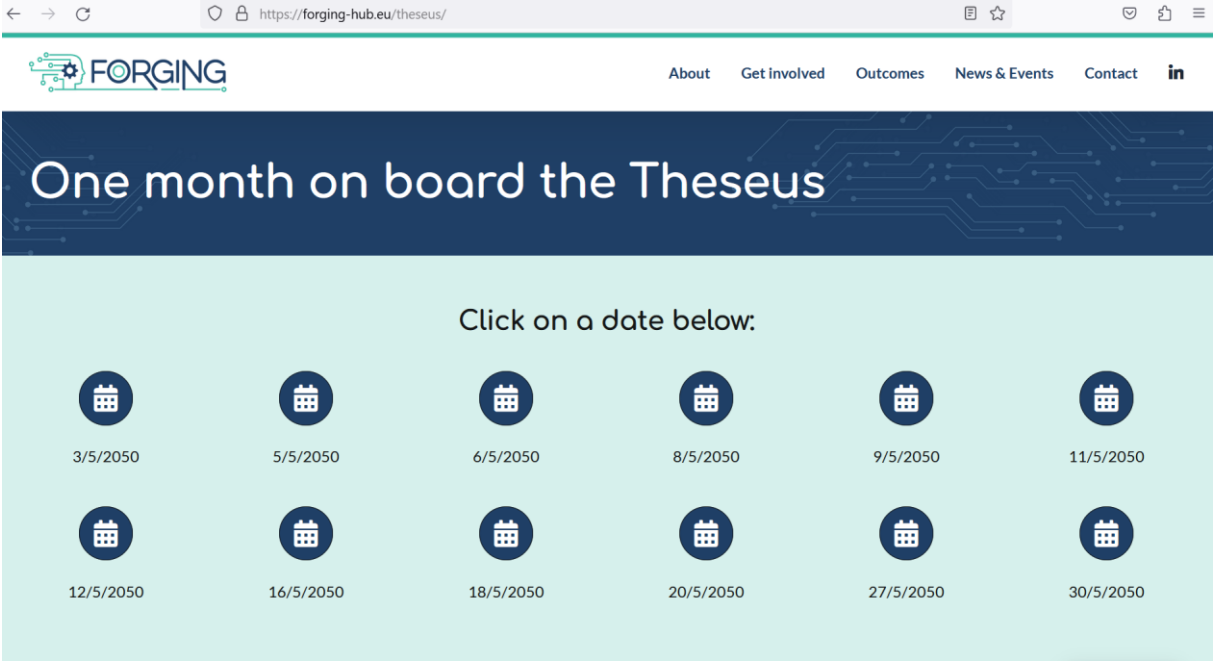
# Epilogue: How to use the narratives

These illustrations have been created to inspire thinking about futures, and the potentials of emerging technologies. In the FORGING project the visualisations and the narratives will act as a tool of dissemination, and for spreading ideas about futures enabled by emerging technologies.

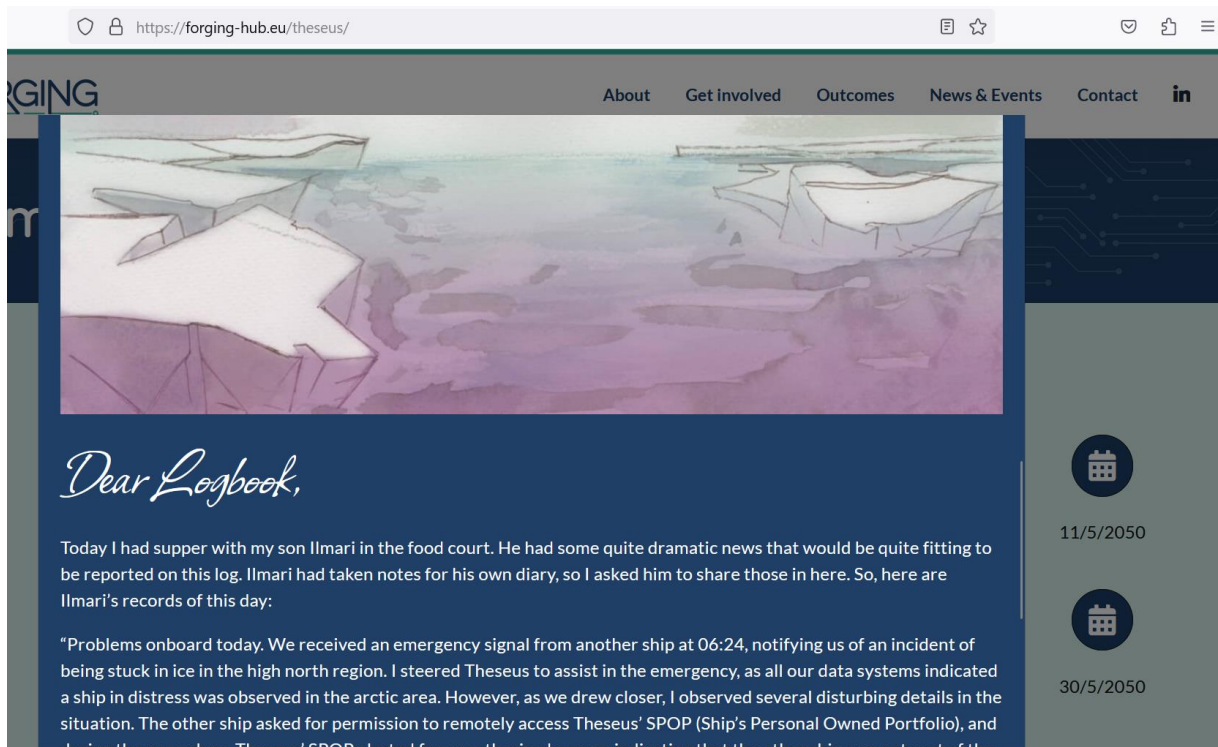
Art is one way to bridge the gap between technological expertise, futures imaginaries, and the general public. Futures imaginaries, meaning our understanding of future possibilities, are a central force in inspiring technological development. In many cases creative thinking has preceded existing technological capabilities.

In this project it has been a great privilege to work with experts both from the academia and from the industries, and this visualisation is a homage to their creative talents. The web version will be accessible to the general public, and we will continue to use these narratives as creative prompts in workshops and other occasions where we will explore the futures of emerging technologies together with all the stakeholders.

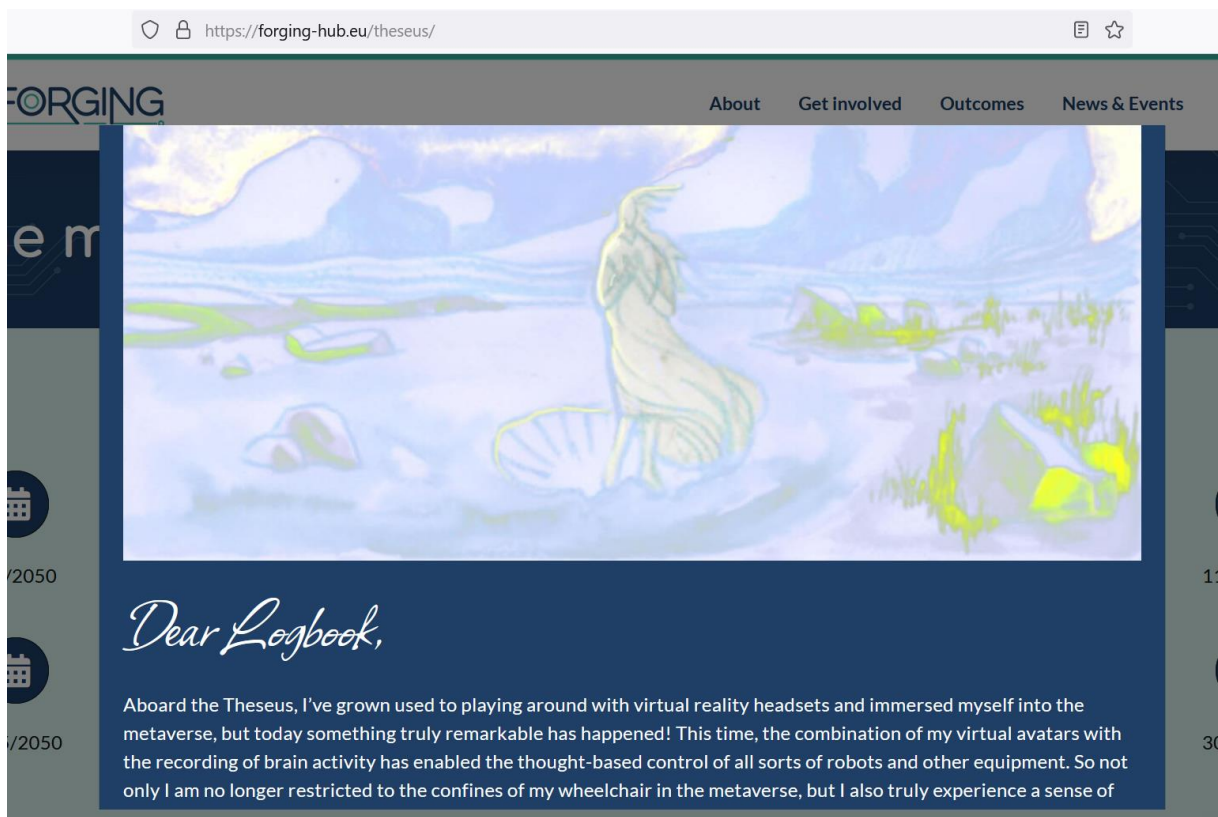
# Attachment 1: Screenshots from the FORGING web page, displaying the Logbook interface



The calendar view, with clickable calendar entries



Example 1 of a Logbook event



Example 2 of a Logbook event



INDUSTRY-ACADEMIA FORUM  
TO UNCOVER THE POTENTIAL OF  
EMERGING ENABLING TECHNOLOGIES



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