

## ComplexXL

An overview across continents  
to explore some of our most complex  
and extra-large projects

### Extremely Large Telescope

Atacama Desert, Chile

The Design and construction of the ELT (Extremely Large Telescope), the largest optical telescope in the world, represents a challenge for complexity, extreme precision required and the context in which it is being built, the Chilean desert. The ELT is the most important project approved by ESO (European Southern Observatory). The dimensions are extremely large for this type of structures with a diameter of 115 m and an overall height of 80 m, comparable to London's Big Ben.

**Domain** Buildings – Civil Engineering

**Client** European Southern Observatory (ESO)

**Time frame** 2017–ongoing

**Total cost** € 3,100,000,000

# From Lithuania to Australia

Roughly 15,178 kilometers is the straight-line distance that separates Vilnius, the Lithuanian capital, from Melbourne. In this interview, you will discover what motivated our colleague Aurimas Sipavicius to embark on this long journey that took him to the land of kangaroos.

**Hi Aurimas. You moved from Lithuania, one of the three small Baltic countries, to Australia, a vast nation ranking among the largest on the planet. How did you find moving across the world?**

I guess I never thought about it that way, but yes, Australia is enormous. You start realising it when you fly from Perth to Melbourne and it takes you approximately 4 hours. Or to get to Canberra – the closest large city and the capital of Australia – takes you 10 hours by car, compared to Lithuania where you can get from border to border in 4 hours. But hey, a big country promises huge projects and great opportunities.

**And how are things for you now in Melbourne?**

I like Melbourne. It's known for its diverse culture and vibrant lifestyle. There are also lots of things to do during your spare time and the surfing beach is just an hour away. Deadly snakes or spiders tend to stay away from the city. It's funny that Melbourne and Sydney are always arguing over which city is better. One has the best harbour, the other has the best coffee and a skyscraper skyline. I think both cities are great.

**You mentioned huge projects and great opportunities. What is your team currently working on?**

Currently, our teams are working on three major infrastructure projects under construction, where we have or are still undertaking the Detailed Design: the Sydney Metro Western Sydney Airport Station Boxes and Tunnels (WSA SBT), North East Link (NEL), the largest PPP infrastructure project in Australia and Snowy 2.0, a pumped hydro project – after completion, it will become Australia's largest green energy project and the world's biggest pumped storage plant.

Together with our new Managing Director Sabrina Kost and Technical Director Lorenzo Facibeni, we are also putting forward our best efforts into Business Development activities and the pursuit of new opportunities. Amongst others, we are currently tendering on the 2nd package of Melbourne's Suburban Rail Loop, which could lead to another Detailed Design next year.

As Australia is moving towards renewable energy, and aligned with our business strategy in Australia, we are also investing heavily into the pipeline of the hydropower sector.

**As of the end of 2022, we have a second office in Sydney – how is your working relationship with your new colleagues?**

The merger operated on a plug-and-play mode from day one, thanks to the collaborative efforts of both offices and the support accomplished by Pini Headquarters. I believe the most significant factor contributing to our seamless collaboration is that both companies have a very similar working culture. Both management and design teams have been on a Teams call with the Sydney office daily ever since. We are perfectly integrated and work as one team.

**What do you find most fascinating about your work?**

That's easy to answer – people, large Projects and their technical aspects, as well as the ability to travel!

**Can you tell us about a particular quirk of living in Australia ... is it true that domestic flights can sometimes be a bit unusual?**

Oh yes. Flying domestic routes can feel a bit strange. You're never asked to show your ID and you just hop on and off the plane like a bus. I have seen people bringing full sets of tools and electric power drills onto a plane. This is probably how they commute to work. I haven't seen a kangaroo yet – but there's a first time for everything!!

**Thank you!**

# Iš Lietuvos į Australiją

Apie 15,178 kilometrų skiria Lietuvos sostinę Vilnių, ir piečiausią Australijos didmiestį Melburną. Šiame intreviu aptarsime kas motyvavo mūsų kolegą Aurimą Sipavičių leistis į tokią tolimą kelionę – į šalį pilną kengūrų.

**Sveiki Aurimai, iš Baltijos skalaujamos Lietuvos persikėlėte gyventi į Australiją – vieną didžiausių šios planetos šalių. Koks jausmas, juk toks tolimas kelias į tokia didelę šalį?**

Australija yra milžiniška, pradėti suvokti skrisdamas iš Melburno į Pertą užtrunka apie 4 valandas. Ar važiuoti automobiliu į arčiausią didmiestį Kanberą (Australijos sostinę) tenka apie 10 valandų, tuo pačiu ilgiausią Lietuvos kelią gali įveikti per 4 valandas. Bet kaip sakoma, didelė šalis žada didelius projektus ir neįsemiamą kiek galimybų.

**Ir kaip jums šiuo metu sekasi Melburne?**

Puikiai, Melburnas labai gyvybingas miestas, garsėjantis savo kultūra bei stiliumi. Laisvalaiku pilna užsiėmimų, o ir paplūdimj kuriame galima užsiiminti banglenčių sportu galima pasiekti per valandą. Mirtinai nuodingų vorų ar gyaucių čia beveik neatklysta.

Melburnas ir Sidnėjus nuolat varžosi kuris geresnis, vienas puikuojasi savo uostu, kitas aukštesnais dangožiai ir nepalyginamai geresne kava. Manau abu miestai yra puikūs, skonio reikalas.

**Užsiminėte apie didelius projektus. Ką šiuo metu dirbate kartu su komanda?**

Šiuo metu mūsų komanda dirba prie trijų didelių infrastruktūros projekty. Vienas iš jų: "Western Sydney Airport Metro" kur projektavome požeminius metro stotis, bei metro tunelius, "North East Link" – didžiausias infrastruktūros projektas Australijoje, bei "Snowy 2.0" – hidroakumuliacinė elektrinė, kuri taps didžiausia tokio tipo atsinaujinančios energijos elektrinė Australijoje.

Kartu su mūsų naujausia vykdoma vadove Sabrina Kost ir techniniu direktoriu Lorenzo Facibeni, daug dirbamė ties būzino vystymu bei naujių projektų paieškomis. Būtent šiuo metu visą savo démesę esame sutelk "Suburban Rail Loop" projektuui Melburne, kurio laimėtojai bus paskelbti jau kitais metais.

Australija skiria didelį démesę atsinaujinančiai energijai, todėl natūraliai ir mes fokusuojamės ties hidro elektrinių projektais.

**Nuo 2022 metų pabaigos turite naują ofisą Sidnėjuje, kaip jums sekasi bendradarbiauti su naujais kolegomis?**

Nuo pat pirmų dienų darbai vyko be jokių nesklandumų dėl kolegų bendrybės pastangų iš abiejų ofisių bei išskirtinio démesio iš mūsų Pini Šveicarijos būstinių. Manau, kad svarbiausias veiksnyς dėl tokių sklandaus bendradarbiavimo yra tai kad abiejų įmonių darbo kultūra yra labai panaši. Virtualiai bendradarbiajame kiekvieną dieną, esame puikiai integravoti ir dirbamė kaip viena komanda.

**Kas jus labiausiai žavī jūsų darbe?**

Lengvas atsakymas – žmonės, mega projektais bei jų techniniai sprendimai, taip pat galimybė keliauti.

**Ar yra teki matyti keistenybių ... ar teisybė kad skrydžiai Australijos viduje kiek neįprasti?**

O taip. Skrydžiai vietiniams maršrutais gali būti šiek tiek keistoki. Niekada neprashoma parodyti asmens tapatybės dokumento, o į lėktuvą išlipama ir išlipama kaip į autobusą. Mačiau, kaiž žmonės į lėktuvą įsineša pilnus frankinių rinkinius ir elektrinius grąžtus. Tikriausiai taip jie važinėja į darbą. Dar nemačiai kengūros, bet viskas būna pirmą kartą!

**Ačiū!**



**Aurimas Sipavicius** was born in a small town in Lithuania. After completing his civil engineering studies, he embarked on a journey across the world in search of exciting projects, making Denmark, India, and Australia his home. He is passionate about watersports, motorcycles, and snowboarding.

**Aurimas Sipavicius**  
Civil Engineer  
Pini Group



## Hobbies:

- Surfing
- Sailing
- Motorcycles

## Music playlist:

- Everybody's Gotta Live by Love
- Beds Are Burning by Midnight Oil (Remastered)
- Lost On You by LP
- Beyhude by Alabora (Foxall Pale Blue Remix)
- BLANCa by Night Spells

**Aurimas Sipavicius**



# The Middle East – the next step in our strategic development

The Middle East is a very attractive and dynamic market and will place the Group in the unique position of being part of the ambitious vision the region has set itself. To seize the incredible opportunities offered by this flourishing region, we took our first concrete step forward with the opening of the new office in Dubai.

Our Middle Eastern team will bring the Group's expertise to the local market, with a focus on UAE and KSA. The team will also drive forward global growth by helping other operational units forge profitable connections with new clients. In the near future a second office will be opened in Riyadh.



The FIDIC Award Ceremony held in Singapore

## Pini Group achieves prestigious FIDIC Project Award with CERN

It is with great pride that we are pleased to announce that the CERN, HL-LHC Point 5 project proposal has received a prestigious Award from The International Federation of Consulting Engineers (FIDIC).

These Awards recognize exceptional engineering projects that have been delivered by the federation's member companies. They help showcase the work of consulting engineering firms and the contribution they make to quality of life, while also encouraging others to understand and support FIDIC principles. The awards promote the use of the FIDIC's best international practices and resources to achieve quality projects that aid in the development of global economies and communities.

The HL-LHC project includes new surface structures with 5 new buildings and underground structures consisting of shafts, caverns and galleries. The project is located at Point 5 (France) next to the existing LHC ring.

We take this opportunity to thank all colleagues and partner companies (Lombardi and Artelia Group) who have contributed to the realization of this great project.



## Major milestone reached on the Rishikesh–Karnaprayag railway line

The Rishikesh – Karnaprayag Railway Line project spans 125.2 kilometers, featuring a single-track railway line currently under construction in Uttarakhand.

This project, undertaken by Rail Vikas Nigam Limited (RVNL), encompasses 12 stations. Once completed, it will significantly reduce the travel time between Rishikesh and Karnaprayag, trimming it down from 7 hours to just a little over 2 hours.

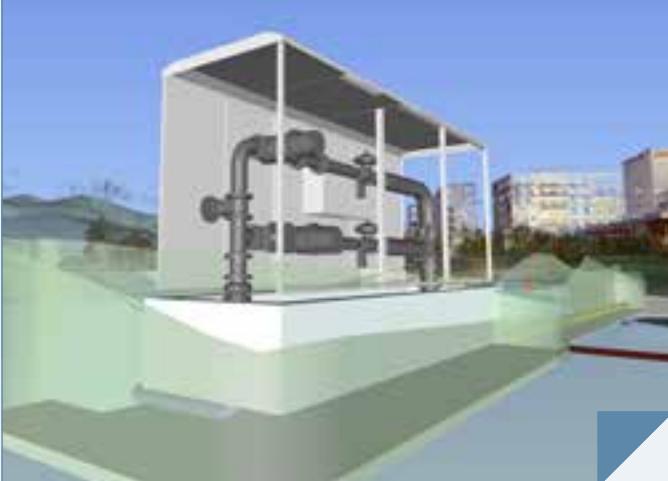
Remarkably, 105 kilometers of this railway line, accounting for 84% of its length, will comprise 35 bridges and 17 tunnels, highlighting the engineering complexity of the endeavor.

A milestone in this project is the opening of the T7 Tunnel from both ends. To celebrate this momentous occasion, the Contractor organized a special breakthrough ceremony at the tunnel site.

## BIM to Field: Erfolgreicher Abschluss des BIM Pilot Projekt zusammen mit Energie 360° AG

Mit der erfolgreichen Installation der letzten Armaturen, Leitungen und der Kabine der Druckminderungs-Station Mühlacker schliessen wir die Bauarbeiten an unserem BIM Pilotprojekt mit der Energie 360° AG erfolgreich ab.

Dank der erfolgreich absolvierten Planungs und Realisierungsphase anhand BIM Methode haben wir die Chancen und Herausforderungen digitaler Baustellen besser verstanden und haben viel dazugelernt. Danke an alle Beteiligten.



## Collaboration at the core of our growth



The ability of a Group to share its know-how and work together defines its own strength. An excellent collaboration among our teams on a global scale is the foundation for the implementation of our "global" philosophy. At the beginning of the summer, all managing directors from the International Business Unit met in Switzerland for a group workshop. It was a great opportunity to deepen personal connections and gain insights into our experiences, strengths and weaknesses. It turned out to be a fruitful, open discussion in which we were able to define the best way to improve ourselves, day by day.

## More women at the top of the Group

Since the beginning of the year, three new colleagues have assumed management positions within our Group, including Claudia Savona (Head of Office Rome), Barbara Bitetti (Head of Office Paris) and Sabrina Kost (Country Manager Australia).



## Ripartono i lavori di realizzazione del nuovo ponte sul Po per la S.S. 413 "Romana"

I lavori per la realizzazione del nuovo ponte sul grande fiume, collocato in posizione strategica tra i comuni di Bagnolo San Vito e San Benedetto Po (Mantova) e interessato da un ingente flusso veicolare, permetteranno in futuro di ripristinare la normale viabilità su questa importante arteria stradale.

Esso è costituito da due impalcati a piastra ortotropa in acciaio, della lunghezza rispettivamente di 180 e 149 metri e peso complessivo di 5000 tonnellate, sospesi e collegati ad archi tubolari con altezza di circa 35 metri.

Pini Group è impegnata nel coordinamento della sicurezza in fase di esecuzione.

## Alle Ampeln auf Grün für die 3. Röhre Gubrist!

Mit der offiziellen Eröffnungsfeier am 3. Juli geht der neue Tunnel vollständig in Betrieb. Die Pini Gruppe ist stolz darauf, im Rahmen des Bauleitungsmandates einen wesentlichen Beitrag zur Entschärfung dieses Nadelöhrs geleistet zu haben.

Als federführende Firma der IG Gubrist Plus möchten wir uns beim Bundesamt für Straßen – ASTRA für die wertvolle Zusammenarbeit und beim Bauleitungsteam für die geleistete herausragende Arbeit bedanken.



## Un incroyable mélange de passion et d'expérience

Norbert Wicht, ingénieur civil depuis plus de 50 ans, explique comment ce mix permet une innovation constante.

[pini.group/joinus](http://pini.group/joinus)

## Two offices to serve the Norwegian market

Following the official opening of Pini Norge AS in 2022 and the Bergen office, a second office has been opened in Oslo at the beginning of the year. This important development will allow colleagues operating from Norway to be near to clients, partners and the actual construction site. Pini Norge AS is currently involved in the Sotra

Link project, where we are providing design services for tunnels, bridges, roads and W&S as well as technical support during construction of tunnels and rock cuts. We are also currently providing tender services to different clients for EPC contracts.

## Risanamento tratta N13 all'ombra del Castello di Mesocco



Prosegue come da programma la fase 1 dei lavori di risanamento sul tratto autostradale N13, tra Soazza e Mesocco (direzione Sud-Nord). Le opere vengono eseguite con riduzione della carreggiata per mantenere il flusso del traffico e garantire il minimo disagio alla circolazione veicolare: un aspetto molto importante, specialmente in periodi di traffico particolarmente intenso.

Pini Group è attiva come direzione lavori in un consorzio di studi di ingegneria, al fine di garantire qualità esecutiva e rispetto delle tempistiche, nonché la corretta gestione finanziaria del lotto.

## The biggest leap within the top 225

In terms of overall stability among the top 225 global design companies, the Pini Group has distinguished itself by climbing a remarkable 65 places, achieving the highest climb in its position compared to the 2022 ranking. The Group jumps from the 206<sup>th</sup> position to the 141<sup>st</sup>, simultaneously securing a place among the top 150 companies, ranked by revenue in millions of dollars for design services performed in the previous year outside their home countries.



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# The intriguing allure of complexity

Before delving into the depths of this subject concerning complex projects, I would first like to introduce myself.

My name is Aymen Cheikh Mhamed. I recently joined the Pini Group team as the Chief Development Officer and Head of the Middle East & North Africa Business Unit. I have previously overseen the implementation of important projects across various parts of the world, which, as an enthusiastic engineer, I have found very exciting and enthralling. These projects have had a significant impact on people's lives and possess the ability to shape the evolution of structures on a global scale. It's actually difficult to remain indifferent when thinking about them.

The Pini Group's "glocal" strategy immediately caught my attention as it aligns well with large-scale projects. I can see how it is an organization that is capable of showcasing its excellence locally, tackling challenges where they arise and establishing solid roots or creating new ones through its active presence.

The challenges that the Pini Group faces can be addressed thanks to the Group's prestigious history, which spans over 70 years, and the contributions of new Group members. The company has accumulated

extensive technical experience, historically associated with the underground sector, but now rapidly expanding into previously uncharted domains. New areas of specialization include bridges, ports, airports, stadiums, hydroelectric power plants, data centers and more. Diversifying in this way allows us to transform into comprehensive engineers more than ever before, allowing us to become perfect cross-functional experts.

We aim to become the preferred choice whenever complex projects that require our input and value generation are in play. When innovation needs to take tangible form, we can conjure unconventional ideas and take on audacious challenges with the right expertise, while always keeping sustainability at the forefront.

We aspire to conceive ambitious projects and bring to fruition the complex challenges presented to us. This objective encompasses every phase of the project process. However, achieving this requires having the right people. This is why we are committed to attracting the best talents, while also enhancing communication and synergies between different Business Units. In this context, iconic projects and exciting challenges become an essential driving force for organic growth, thanks to the inspiration they can generate. It's a virtuous cycle in which every element involved contributes to the company's growth.

**Aymen Cheikh Mhamed**  
Chief Development Officer  
Head of Business Unit MENA

# L'intrigante séduction de la complexité

Avant de plonger dans les profondeurs de cette réflexion dédiée aux projets complexes, permettez-moi de me présenter.

Je suis Aymen Cheikh Mhamed, récemment nommé Chef du Développement et responsable de l'Unité d'Affaires Moyen-Orient et Afrique du Nord au sein du Groupe Pini. Dans mon expérience précédente, j'ai géré la réalisation de projets importants dans différentes parties du monde, ce qui, en tant qu'ingénieur enthousiaste, ne pouvait que me captiver. Ces projets sont ceux qui ont un impact significatif sur la vie des gens et ont la capacité de façonner l'évolution des structures à l'échelle mondiale. Il est en fait difficile de rester indifférent face à eux.

La stratégie Glocal du Groupe Pini a immédiatement retenu mon attention, s'alignant bien avec les projets à grande échelle. Une organisation capable de montrer son excellence localement, de relever les défis là où ils se présentent, et d'établir des racines solides ou d'en créer de nouvelles grâce à sa présence active. Ces défis auxquels le Groupe Pini est confronté sont soutenus par plus de 70 ans d'histoire prestigieuse et les contributions de nouveaux membres du Groupe. La société a accumulé une vaste expérience technique, historiquement associée au secteur

souterrain, mais s'étendant désormais rapidement à des domaines jusqu'alors inexplorés. De nouvelles spécialisations incluent les ponts, les ports, les aéroports, les stades, les centrales hydroélectriques, les centres de données, et bien plus encore. Cette diversification nous transforme plus que jamais en ingénieurs complets.

Nous aspirons à devenir le choix préféré chaque fois que des projets complexes nécessitant notre expertise et notre génération de valeur sont en jeu. Lorsque l'innovation doit prendre forme tangible, nous pouvons susciter des idées non conventionnelles et relever des défis audacieux avec l'expertise appropriée, tout en étant toujours conscients de la durabilité.

Nous aspirons à concevoir des projets ambitieux et à concrétiser les défis complexes qui nous sont présentés. Cet objectif englobe chaque phase du processus de projet. Cependant, pour y parvenir, il faut avoir les bonnes personnes. C'est pourquoi nous nous engageons à attirer les meilleurs talents, tout en renforçant les échanges et les synergies entre les différentes Unités d'Affaires. Dans ce contexte, les projets emblématiques et les défis passionnnants deviennent une force motrice essentielle de la croissance organique, grâce à l'inspiration qu'ils peuvent générer. C'est un cercle vertueux dans lequel chaque élément impliqué contribue à la croissance de l'entreprise.

**Aymen Cheikh Mhamed**  
Chief Development Officer  
Head of Business Unit MENA

## 360° Throughout the whole lifecycle of a project

- Strategic Planning
- Preliminary Studies and Design
- Final Design
- Permit-obtaining Procedure
- Tender Design
- Detail/Construction Design
- Construction Management
- Commissioning, Completion
- Operation, Control, Maintenance



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Pini Group is a Swiss engineering and consulting services provider with more than 70 years of experience in:

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- Urban & Cities
- Digital & Innovation
- Energy & Environment

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