

think&do



The magazine of

PINI GROUP

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Tour de Suisse

Join us on a tour of our Business Unit Switzerland

Outitt d'la Madona, Tremola San Gottardo

Traunter sömmi e carriera

Between dreams and career



Cumanzainsa quist nos Tour de Suisse cun üna intervista a Luca Tavasci, ün giuven indscheiniger capabel da concilier fich bain la lavur e sia paschiun.

We begin our Tour de Suisse with an interview with Luca Tavasci, a young engineer able to combine work and passion in the best possible way.

Luca Tavasci



Luca Tavasci es naschieu e creschieu illa müravglusa Engiadina. Zieva una scolaziun illa val, ho el cuntinuo cun ils stüdis a la scoula ota professiunela da Cuira, lo as ho el diplomo scu indscheiniger civil. Hoz lavura el il team cha's occupa d'indscheiniger ambientela, cun il focus sün ils prievies da natura.

Luca lavura a'l 50% per perseguier sieu sömmi da's qualificher darcho per ils gös paralimpcos.

Luca Tavasci was born and raised in the beautiful Engadine. After an education in the valley, he continued his studies at the University of Applied Sciences in Chur, where he graduated as a civil engineer. Today he works in the team dealing with environmental engineering, with a focus on the dangers of nature.

Luca is working part-time to pursue his dream of qualifying (again) for the Paralympic Games.

Luca Tavasci
Civil Engineer
Pini Group



Hobbies:

- Reading
- Being in nature
- Fitness

Music playlist:

- *Unstoppable* by SIA
- *Another Love* by Tom Odell, Tiësto
- *House of Memories* by Panic!
- *Still D.R.E* by Dr. Dre, Snoop Dogg
- *I'm Good (Blue)* by David Guetta

Dinuonder vegn tia paschiun per l'indscheinigeria?

Daspö la quarta classa primara d'eira per me cler ch'ea vess vulieu d'vanteer indscheiniger. Ils ans il gimnasi l'haun lura cunfermo. Lo avaivi grand interest per la matematica, fisica, chemia, biologia ma eir per las linguis estras. L'indscheinigeria es per me ün möd per applicher la teoria e quists rams per schoglier problems reels.

Chenünas sfidas as preschaintan il territori alpin, il quêt tü est aduso a lavurer?

La sfida pü granda es la planisaziun pervi dal temp concis per realiser ils progets, cun que cha's po be fabricher da la prümavaira fin in utuon. Pü in ot cha's vo cun pü cha que dvainta difficil. Cun que es eir il temp per la progettaziun fich definie e pel pü concentro d'vraunt l'inviern. Ün oatra sfida es eir la flexibilitäit d'vraunt tuot las fasas da proget. Lavurand illa natüra ed in montagna as ho svelt facturs imprevus ed as stu chatter soluzions per pudair realiser il projet il temp previs e professiunelmaing. Fich importanta es la comunicaziun e collauraziun cun las impreisas sül lö. Tuot quist renda mia lavur eir uschë interessanta.

Che stimast tü il pü da tuot da la gruppia Pini?

Scu sportiv da prestaziun sun eau fich furtüno da pudair cumbiner mieus bôts sportivs cun la lavur. Pini ed il team a San Murezzan am daun la possibilità da lavurer al 50% e pudair avair dapü temp per trainer e piglier part a cuoras internazionales. L'Engiadina cun sias culissas natürelas e possibilitàdes per fer sport fo il rest.

...che per importanza ho il sport i tia vita?

Per me ho il sport üna grada importanza cun que ch'ea vez il sport ün proget persuel e per me svess. Quist svilup persuel e da "mindset" es fich important per me e sun persvas ch'e am porta eir pü tar illa vita bger.

Quaunt importante es questa activited per ün bun equiliber e che avantagis hest sulla lavura?

Il sport nun es pü be ün hobby ma el es dvanto üna seguonda lavur dasper quella scu indscheiniger, ma listess am güta el eir sün quella.

Duraunt l'activited dadoura am vegnan magari adimanit idejas e soluzions eir per la lavur. Ma id es listess important da fer ün tagl net traunter lavur e sport, ed esser preschaint al 100% d'vraunt l'activited sportiva. Que am güda zieva ad esser pü concentrato illa lavur e pudair esser efficianit. Id es important da avair preschaint las priorities ed incleger cura as ho d'investir inua il temp cha's ho a disposiziun, saja que duraunt la lavur o duraunt il sport.

Che voust fer da grand?

Mieu sömmi es da pudair radschunger mieus bôts sportivs, la partecipaciun als Gös Paralympics il 2026 e pudair avair concretas schanzas sün ün podium.

L'oter bôt es da dvanter ün indscheiniger cun buna experienza e competenzas in mieu sectur cun auch'adüna ün bun equiliber traunter temp liber e la lavur.

Where did your passion for engineering come from?

It was clear to me from about the age of 9 or 10 that one day I would become an engineer. The secondary school years only confirmed this idea. I had a great interest in mathematics, physics, chemistry, biology and even languages. Engineering is a good way for me to apply theory and these special interests to solve concrete problems.

What are the biggest challenges in an alpine environment in which you are used to working?

The biggest challenge is the planning because of the tight timeframe you have at high altitude to realise projects. Basically from spring to autumn. The higher you go up into the mountains, the more complicated things become. Consequently, a great deal of time is spent during the winter months on planning and design. A further challenge is that of flexibility during the various planning phases. Working in nature, and in the mountains in particular, means often having to cope with unforeseen events and therefore having to find solutions in order to be able to realise projects on time and in a professional manner. Good collaboration with local companies is therefore very important. All this makes my job very interesting.

What do you value most about Pini Group?

I am an elite sportsman and am therefore very lucky to be able to combine work with my sports goals. Pini and the team in St. Moritz give me the opportunity to work part-time on a 50% basis, giving me more time to train and participate in international competitions.

The Engadin, with its landscapes and training possibilities, then does the rest.

...so how important is sport in your life?

For me, sport is first and foremost a personal project, and is therefore of great importance. My personal development and the development of my 'mindset' are very important to me, and I am convinced that they have a profound effect on my life.

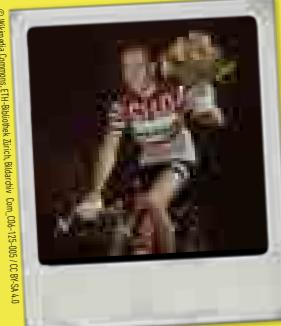
In terms of a good overall balance, how important is this activity and what benefits does it bring to your work?

Sport is no longer just a hobby. In fact, I see it as a second job. During training activities in nature, I perhaps come up with ideas and solutions for work. But it's still important to try to make a clean cut between work and sport, in order to be 100 per cent efficient during sporting activity. This then helps me to concentrate better during work and be more efficient. It is important to be aware of your priorities and understand how to invest the time you have available, both during work and sport.

What do you want to do when you grow up?

The dream is to achieve my sporting goals and to take part in the Paralympic Games in 2026... and perhaps have a real chance of securing a podium finish. My other goal is to become an engineer with good experience and solid skills in my specific field, while maintaining a healthy balance between work and leisure time.

Tour de Suisse

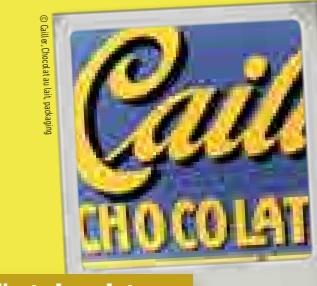


In 1950, Luigi Pini founded Studio d'Ingegneria Pini in Lugano. In the same year, and more precisely on 1 July, another Swiss man achieved an important milestone. This was the great two-wheel champion Hugo Koblet, who won

the gold jersey of the prestigious Tour De Suisse thanks to an exhilarating performance. It is with this fortuitous anecdote that we want to begin our virtual Tour de Suisse, through what is a historic Business Unit for the Pini Group. In this tour, we will encounter people, branches, projects, curiosities and facts, with the aim of better presenting this reality of ours in the centre of Europe. Have a good trip... and don't miss the slipstream!



The first chocolate factories were built in the 18th century in French-speaking Switzerland



90% of watch production is concentrated in the Watch Valley in the Jura Arc



Confederation (Confœderatio Helvetica)

- 8,738 million people*
- 4 national languages (German, French, Italian, Romansh)
- Bern is the capital city
- 26 cantons
- 2,172 municipalities
- Surface area 41,285 km²
- The Alps make up almost 60% of the country
- Lakes and rivers cover around 4% of its surface area
- GDP 812.9bn*
- Time: CET

* Data as at 2021

Entrée du tunnel de base depuis le site de Villard-Clément
- TELT - CO 08 (VP).



Tunnel Eralpin Lyon–Turin, Lot CO 08

Le tronçon transfrontalier de la nouvelle ligne ferroviaire Lyon-Turin a une longueur d'environ 67 km et relie Saint-Jean-de-Maurienne en France à Suse en Italie.

La particularité de cet ouvrage est représentée par la construction d'un tunnel bitube à voie unique de 57,5 km, dit «tunnel de base du Montcenis.»

Du côté français, les travaux d'excavation liés au tunnel de base sont divisés en plusieurs chantiers ou «Chantiers Opérationnels» en français (CO).

Le Groupe Pini est impliqué dans la partie française de ce projet en tant qu'acteur clé de la maîtrise d'œuvre et en tant que concepteur sur les CO 05a, CO 06/07 et CO 08.

Le CO 08 est situé à Villard Clément et représente l'accès ouest de la base tunnel. Ce CO 08 comprend le creusement du portail d'accès, des deux tubes de 3,8 km chacun, des rameaux de communication et du tronçon en tranchée couverte de 150 mètres de long.

La géologie est caractérisée par une combinaison de sol porteur d'eau douce sur les 500 premiers mètres d'excavation et de masse rocheuse sur la partie restante de l'alignement.

En raison des mauvaises conditions de sol attendues à travers les unités de sol, les travaux d'excavation comprennent l'installation d'un pré-soutènement consistant en un jet-grouting (dans la zone du portail), un parapluie de tuyau, des forages de drainage et des boulons de face.

Le tunnel est creusé par moyen des méthodes conventionnelles.

Le coût total s'élève à environ 250 M€, et les travaux de construction dureront jusqu'en 2027.

sia di risanamento di opere esistenti.

Tra i maggiori contratti in corso possiamo annoverare ad esempio: il progetto esecutivo S.S.275 di Santa Maria di Leuca; il progetto di fattibilità tecnico-economica S.S.64 Porrettana Ammodernamento del tratto fra Sasso Marconi e Vergato; il progetto definitivo Potenziamento dello svincolo della S.S.36 del Lago di Como e dello Spluga in località Dervio. Sono inoltre previsti dei risanamenti di opere esistenti, quali: il viadotto Falconara I, sulla S.S.16 Adriatica ed il ponte sul Fossaccio, sulla S.S.64 Porrettana.

Un importante mandato, per il quale Pini Group avrà modo di mettere in campo molteplici competenze, tra le quali: caratterizzazione geotecnica, progettazione di tracciati stradali, progettazione di opere in sotterraneo, progettazione di opere di scavalco.

14 accordi quadro in tutt'Italia con ANAS

ANAS S.p.A. costruisce e gestisce le strade statali in tutta Italia.

Gestisce 32'000 km di strade, con oltre 18'000 ponti e 2'000 gallerie e dispone di un piano di investimenti di 36 miliardi di euro per il prossimo quinquennio.

Pini Group ha in essere 14 accordi quadro su tutto il territorio nazionale; ogni contratto si esplica in più contratti attuativi. L'importo complessivo di progettazione previsto è di oltre 16 milioni di Euro. Tutte le sedi italiane di Pini Group e tutte le sezioni sono coinvolte nella progettazione per ANAS, sia di nuovi interventi

Für die Events von Snowpolo, White Turf, THE ICE sowie "Amusement on the Lake" ist unsere Filiale von St. Moritz für die Infrastruktur und die Sicherheit verantwortlich. Das ist ein jährlich wiederkehrender Auftrag. Die Investitionssumme für die temporären Bauten und die Bearbeitung der Eisbahnen, Rennpiste und Polofeld belaufen sich auf über 2 Mio. CHF, und sorgen dafür, dass die Veranstaltungen mit größtmöglicher Sorgfalt für Teilnehmer und Zuschauer stattfinden können.

Die Filiale holt Offeren ein und macht die Bauleitung inklusive Abrechnung. Die Kollegen sind ständig vor Ort, um die Entwicklung der Situation und der Aktivitäten zu verfolgen.

Die Infrastruktur auf dem gefrorenen See ist bereit für Snowpolo.



Rendering dell'imballo per la galleria - Potenziamento dello svincolo di Dervio.

Die Pini Gruppe auf dem gefrorenen St. Moritzersee

Das Oberengadin ist eine der beliebtesten und bekanntesten Tourismusdestinationen der Welt.

Im Winter finden zahlreiche Veranstaltungen statt, einige davon auf den zugefrorenen Seen. Der Sicherheitsaspekt spielt daher, insbesondere angesichts der Eissituation, eine wichtige Rolle.

Video Spot HR

This is how our colleagues describe Pini Group in the new video spot promoting job offers.

What about your opinion?



More information on vacant positions is available at pini.group/joinus



Pini What a Project!

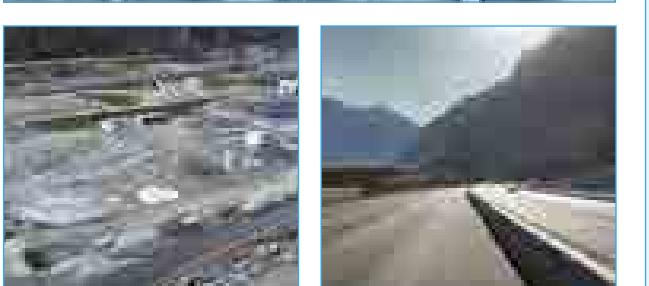
It is with this title that a new goal of sharing internal expertise among Pini Group employees is officially launched. Once a month, our engineers will have the opportunity to find out interesting details about amazing projects in which the Group has played a major role.

CERN Hi-Lumi Point 5

Grâce à la modernisation de l'accélérateur de particules du CERN, les scientifiques augmenteront leurs chances de faire des découvertes qui révolutionneront notre existence à l'avenir. Le LHC à haute luminosité, qui devrait être opérationnel dès le début de 2029, permettra aux physiciens d'étudier plus en détail les mécanismes connus, comme le boson de Higgs, et d'observer éventuels nouveaux phénomènes très rares. L'achèvement des travaux de génie civil constitue une première étape importante dans cette direction, pour laquelle Pini Group a été actif en première ligne en tant que designer.



Apertura del Centro di Controllo dei Veicoli Pesanti (CCVP) e del nuovo svincolo di Giornico



Il nuovo Centro di Controllo dei Veicoli Pesanti (CCVP) consentirà di gestire il dosaggio dei trasporti di merci che valicano le Alpi e di intensificare i controlli sul traffico pesante. La realizzazione di tale opera permette di aumentare sensibilmente la sicurezza di tutti gli utenti dell'autostrada e, nel contempo di eliminare i pericolosi incolonnamenti di TIR lungo le corsie di emergenza.

Neue Niederlassung Aarau

Ab 2023 wird die Pini Gruppe in Aarau mit einer Niederlassung vertreten sein.



Ideal zwischen den Wirtschaftszentren Zürich, Bern, Basel und Luzern gelegen, wird der neue Standort Beratungs- und Bauingenieurleistungen in einer prosperierenden Region anbieten.

Metaverse

We would like to thank the Corriere del Ticino, which in a recent interview with our colleagues Umberto Ceccarelli and Kateryna Chaplynska explored the topic of the Metaverse with us. Check out the video and immerse yourself in this virtual reality collaboration platform.



Prémio Atribuído à Equipa Portuguesa da Pini Group

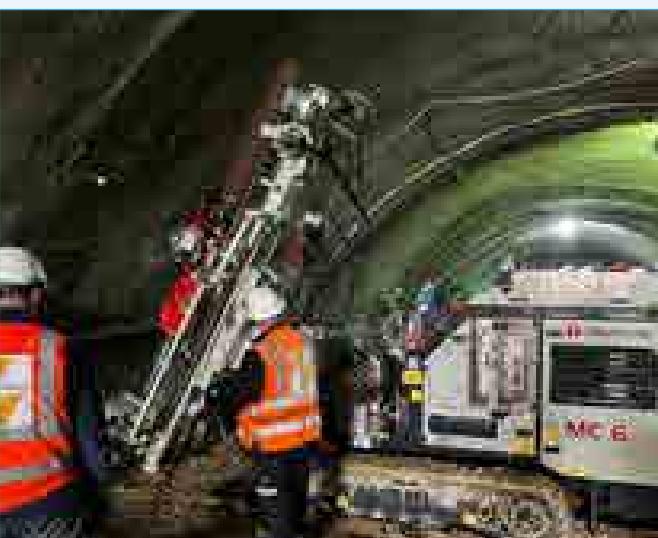
A JLCM foi distinguida com o Prémio Melhor Projeto Público na categoria "Engenharia" pelo projeto de Reabilitação da Ponte Internacional sobre o Rio Guadiana.



A Ponte Internacional sobre o Rio Guadiana, projeto da JLCM, inaugurada em 1991 e reabilitada entre 2018 e 2021 na sequência da corrosão severa detetada nos tirantes, tem um vão central com 324 metros, o que faz dela uma das pontes mais significativas de Portugal e Espanha. Esta distinção, atribuída pelos prestigiados Prémios Construir 2022, premeia o empenho da JLCM em desenvolver soluções sustentáveis para as gerações futuras.

Tunnel Val Alpetta

Viager pù svelt ed in sgürezza in Engiadina Bassa grazcha al tunnel Val Alpetta. El es ün da tschinch nouv tunnels, ils quels augmentaron la sgürezza dal traffic traunter Vinadi e Samignun. Il Tunnel, ch'es lung 630 meters, fo part d'un grand proget per ingrandir la via da collazion traunter las duos vschinauchas in Engiadina Bassa.



Preparation works ongoing for the benching down of 431-1 rail tunnel in Tel Aviv

The 431 Rail Lane connects the eastern part of Israel to Tel Aviv and it includes the construction of tunnel 431-1. The double lane railway tunnel has a length of 250 meters and a cross-section of 125 m². It is excavated underneath motorway 431 through difficult geological conditions characterized by cohesionless sand and very low overburden. After successful breakthrough of the top heading, the preparation works for the 7-metre-high benching down are under execution. The latter includes the execution of 3,000 jet grout columns and 1,000 micro piles in the foundation area.

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Swissness

La piccola Svizzera, nel cuore dell'Europa, circondata da paesi potenti e con maggiori risorse naturali, facendo di necessità virtù, ha investito in conoscenza e in attività all'avanguardia.

Ricerca, precisione, innovazione, alta qualità sono sempre stati i tratti distintivi della nostra industria. Non fa eccezione il campo dell'ingegneria, che, negli anni, ha saputo sfornare personalità di calibro, capaci di costruire in tutto il mondo, partendo dal cuore delle Alpi.

Il Gruppo Pini è nato in Svizzera e rimane saldamente radicato e attivo nel proprio paese d'origine. Ancora oggi, infatti, il 50% del fatturato del Gruppo è generato nella Confederazione. Lo sviluppo di competenze di alto livello nel campo delle opere in sotterraneo ha permesso (ed in parte anche richiesto) all'azienda di entrare nei mercati esteri e di esportare servizi di ingegneria ad alto valore

aggiunto, nell'intento di valorizzare le proprie competenze e le proprie referenze e garantirne la continuità.

Da questo processo è nato un Gruppo europeo con attività e presenza nei cinque continenti. Una società che, nel segno della tradizione elvetica, opera a livello locale e coltiva le peculiarità di ogni singola regione, valorizzandone le differenze e concentrando le capacità.

Una sorta di incubatore dove l'unione fa la forza, in chiave confederata, e permette a ciascun individuo di sentirsi a casa in un'azienda globale che agisce in prossimità. Creando il paradosso che più il Gruppo si espande, più questa caratteristica di "Swissness" sarà presente.

Andrea Galli
Chief Executive Officer
Pini Group

In the heart of Europe, surrounded by powerful countries with more natural resources, little Switzerland has made a virtue of necessity by investing in knowledge and cutting-edge technology.

Research, precision, innovation and high quality have always been the hallmarks of our industry. The field of engineering is no exception, as over the years it has been able to produce many personalities of high calibre who have built all over the world.

The Pini Group was born in Switzerland and remains firmly rooted and active in its home country. In fact, even today, 50% of the Group's turnover is generated in Switzerland. The development of high-level skills in the field of underground works has allowed, and yet also required, the company to enter foreign markets and export high-value engineering services, with the intention of enhancing its

references and its competences and ensuring continuity.

The result is a European Group with activities and a presence on five continents. A company that, in keeping with the Swiss tradition, operates locally, while cultivating the particularities of each individual region, enhancing its differences and concentrating its capabilities. An incubator of sorts where unity is strength, in a confederate manner, allowing each individual to feel at home in a global company that operates locally. Creating the paradox in which "Swissness" will become more prominent as the Group expands.

Andrea Galli
Chief Executive Officer
Pini Group

Worldwide numbers

International footprint in over 50 countries

More than 1000 current projects

More than 800 employees

800

90

40

5000 km of tunnel

$$G = \frac{E}{2(1+\nu)}$$

$$K = \frac{E}{3(1-2\nu)}$$

$$\gamma_{xy} = \frac{\nu y}{G}, \quad \gamma_{yx} = \frac{\nu x}{G}, \quad \gamma_{zx} = \frac{\nu z}{G}$$

mn turnover

CHF

branch offices



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We are a leading European engineering and consulting services provider with 800 employees and more than 70 years of experience in:

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

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- Fribourg
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- Lausanne
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- Rapperswil
- Roveredo
- Sion
- St. Moritz
- Zurich

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- Milan
- Rome
- Trento
- Turin

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- La Paz, Bolivia
- Las Condes Santiago, Chile
- Lima, Perù
- Quito, Ecuador
- São Paolo, Brasil

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