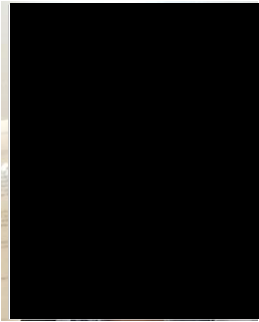


Fabio Tradigo



Profession

Geotechnical Engineer

Current Position

Senior Engineer

Joined Arup

October 2014

Years of Experience

8

Nationality

Italian

Qualifications

Ph.D. (Hons) in Structural, Seismic and Geotechnical Engineering, Politecnico di Milano, Milano, IT (2014)

MsC Eng (Hons), Civil Structural Engineering, Politecnico di Milano, Milano, IT (2010)

Professional Associations

International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE). Elected Member of Young Member Presidential Group

Italian Geotechnical Association (AGI)

Urban Land Institute (ULI)
Chartered Engineer in Italy

Collaborations

Reviewer for a number of international peer-reviewed technical journals, including Computers and Geotechnics, Géotechnique Letters, Canadian Geotechnical Journal, Earthquake Engineering and Engineering Vibration.

Involved in a number of national/international research projects

Publications

- Tradigo, Mussi, Cresci, De Caro, Crosta, Frattini, Castellanza (2019), Blue-green infrastructures and groundwater flow for future

Fabio joined Arup in October 2014, and is currently working in the Milan office as a Senior Civil and Geotechnical Engineer. He has been involved in specific as well as multidisciplinary projects, including preliminary to detailed design, assistance to general contractors for design and built, as well as due diligences and consultancies.

After graduating as a Structural Engineer at Politecnico di Milano, Fabio became Doctor of Philosophy in Seismic, Structural and Geotechnical Engineering at Politecnico di Milano (2015).

Fabio has also lectured at Politecnico di Milano a number of courses (Geotechnics, Fundamentals of Structural Mechanics Statics, Principles of Structural Behaviour) and collaborates with a number of international journals as reviewer.

Fabio is periodically invited to take part as a speaker at national/international conferences and university courses.

Fabio is currently the geotechnical numerical skills representative for Europe, the responsible for Arup Italy research activities and he is leading Arup Italy BIM development in the geotechnical and infrastructure sector.

Fabio applied his technical, project management and digital skills to a number of successful national and international projects.

Projects

Sirius Minerals – York Potash Mine, Yorkshire (2017 – ongoing)

Project lead by Arup UK offices which comprises detailed design of what will be the deepest shaft in Europe. Fabio has been leading multidisciplinary Milan team delivering a number of detailed design shaft packages as well as the technical lead for monitoring activities for some shafts carried out in accordance with the Observational Method.

Coima s.r.l. – Gioia 20, Milan - Italy (2018 – ongoing)

Geotechnical design of a high-rise office tower (about 110 m) and a low-rise tower foundation system. Design of retaining walls to support the 20 meters deep excavation near the metro line and several buildings. Fabio was the Discipline Leader for geotechnics during all design phases (from preliminary to scheme design, ongoing).

development of Milano (Italy),
Proc. ECSMGE 2019 (in
publication)

- Tradigo, Rama, Raimondi,
Brambilla (2018), Prova di carico
su palo tramite cella Osterberg,
Proc. IAGIG 2018

- Tradigo, Mussi, Petrella, Pisanò
(2017), Settlement prediction and
monitoring of a piled raft
foundation on coarse-grained soil:
the case of the Allianz Tower in
Milan, Proc. 19th ICSMGE, Seoul

- Tradigo, Pisanò, di Prisco (2015),
On the use of embedded pile
elements for the numerical analysis
of disconnected piled rafts,
Computers and Geotechnics
- Tradigo, Pisanò, di Prisco, Mussi
(2015), Non-linear soil-structure
interaction in disconnected piled
raft foundations, Computers and
Geotechnics

- Tradigo, Pisanò, Mussi, Persio, di
Prisco (2014), Finite element
analysis of soil-structure
interaction in disconnected piled
raft foundations, NUMGE 2014

- Tradigo, Castellanza, Partovi,
Schreppers (2015), Calibration
procedure for embedded pile
modeling based on in situ pile load
tests, ECSMGE 2015

- Tradigo (2015), Geotechnical and
modeling issues in the design of
settlement reducing piles for high-
rise buildings, PhD thesis

- S. Pavone (MsC Thesis, 2015,
Politecnico di Milano), Analisi
numeriche non lineari di sistemi di
fondazioni: l'uso di riduttori di
cedimento in presenza di carichi
verticali centrati ed eccentrici. Co-
supervisor with prof. C. di Prisco.

- Chang Q (BsC Thesis, 2014,
Politecnico di Milano), Analisi di
platea su pali distaccati,
caratterizzazione meccanica del
comportamento del terreno
compreso tra la platea e il palo di
fondazione. Co-supervisor with
prof. C. di Prisco.

- L. Grassi (BsC Thesis, 2013,
Politecnico di Milano), Analisi
FEM della interazione palo-platea
nelle fondazioni su pali. Co-
supervisor with prof. C. di Prisco.

Equinix – Data Center, Settimo Milanese (Milan) - Italy (2018 – ongoing)

Preliminary and scheme design, procurement and site supervision
for a new data center building. Discipline Leader for geotechnics.

CCL – Sei Milano, Milan - Italy (2018 – ongoing)

From preliminary to detailed design of three multi story
residential buildings sitting on a podium. Discipline Leader for
geotechnics.

Generali RE – Procuratie Vecchie, Venezia (2017 – 2018)

Support for preliminary and detailed design. Restoration of a
historical masonry building representing one of the most relevant
works of Venetian Architecture of 16th century. Discipline Leader
for geotechnics.

Highways England – M49 Avonmouth Junction bridge, Bristol (UK) (2018)

Category 3 check for the foundations of piled integral bridge piers
in the presence of a 10m height embankment and very
challenging ground conditions. Discipline Leader for geotechnics
and responsible for soil-structure interaction FE analyses.

Abertis Infraestructuras SA – BIM Policy (2017 – ongoing)

Project Manager for the delivery of Abertis BIM Policy, a
strategic document relate to the digitalization of Abertis activities.
The project involved many interactions with key stakeholders
both at the Headquarter and at the Business unit level. The Policy
will be deployed in all Abertis Business Units worldwide.

Seaport Franchising Ltd – St. Julian's Complex, Seabank Tower, Malta (2017-2018)

Multidisciplinary project of a new 170m tower in Malta, from the
concept to scheme design under seismic conditions. Fabio has
been the design lead for geotechnics (technical specification and
support for ground investigation, pile design). The main
challenges were mapping small and large cavities and faults into
weak limestone formation.

Chiesi Farmaceutici S.p.A – Chiesi HQ, Parma, Italia (2016 –2018)

Multidisciplinary project of the new headquarters of an Italian
pharmaceutical firm, from the concept design to construction. It
includes two 35m high composite concrete/steel structures and a
number of low-rise buildings, mainly founded on deep
foundations. Fabio has been the design lead for geotechnics and
civil works (ground investigation and Osterberg pile test
specification, site supervision and interpretation; from concept to
detailed design of deep/shallow foundations and civil works;
supervision during construction).

Fabio has also been in charge of the procurement of a number of contract packages (demolitions, GI, pile test, deep foundations).

Abertis Infraestructuras SA and Autostrada Brescia-Padova – BIM strategy definition (2017 – 2018)

Advisory role for the development of the strategy to implement BIM into Autostrada Brescia-Padova organization. This included short (e.g. definition of standards and EIR to be used for small to medium tenders), medium (implementation of BIM for the new A31 North scheme design project) and long (processes, tools, training) term objectives.

Abertis Infraestructuras SA, A31 North Due Diligence, Valdastico (2017)

Geotechnical and infrastructures technical advisory role for the detailed design of the extension of the Valdastico A31 motorway, with particular regards to the tunneling aspects.

Salini Impregilo S.p.A. – Expo 2020 Dubai Sewer, D&B Tender, Dubai (2017)

Tender design for a 12 kilometre-long stormwater tunnel network, including large deep shafts. Fabio has been responsible for the geotechnical and structural design of the deep shafts and shunt tunnels, also by means of 3d finite element analyses.

ACF Fiorentina, Florence (2015-2018)

Geotechnical feasibility study for the new development (stadium and related commercial center) and scheme design. Preliminary and scheme geotechnical design of the new stadium and related podium, including ground investigation specification and site supervision.

Marieholm tunnel, Göteborg, Sweden (2016-2017)

Marieholm Tunnel includes a new immersed tube tunnel crossing the Göta Älv River, settling on highly compressible clays. Fabio was in charge of carrying out advanced numerical analyses employing a number of different constitutive models (including creep) in order to predict both short and long term settlements of the tunnel and of the adjacent structures.

Eurnova srl / Stadio TDV Spa – Unicredit Tower, Rome (2015 – 2016)

Preliminary design of the new high-rise building by Libeskind within the business park associated to the development of the new stadium. Over 200m high rise building based on deep foundation in very high compressible soils. Geotechnical design.

Eurnova srl / Stadio TDV Spa - Tor di Valle development, Rome (2014 - 2016)

Technical supervision of the feasibility phase and preliminary phase of the infrastructures, advisory strategic role to client for the development related with the new stadium of the AS Roma and related commercial and business center development. Fabio has been planning, supervising and interpreting ground

investigation on the whole area and carried out the geotechnical design of the foundation of the private development.

**Motorway A10bis “Gronda” / SPEA S.p.A., gruppo
Autostrade per l’Italia, Genoa, Italy (2016)
Technical Due Diligence**

Technical due diligence for a new 65km toll road, which entails the construction of 25 natural tunnels (55km) in asbestos material and 21 viaducts, as well as land reclamation by means of 9.5m³ of excavated soil. The estimated overall cost is approximately €3.2bn. Arup scope included a special focus on the procurement strategy and programme risks. Fabio supported Arup Project Manager in the coordination of the international team of Arup experts and in the management of the Client. He was also part of the team who carried out the geotechnical due diligence of the project.

**Factory Upgrade / Coesia Group S.p.A.,
Seremban, Malaysia (2015-2016)**

Arup assisted Coesia in the conversion of an existing industrial facility in Malaysia for aseptic packaging of food products, from the acquisition of the plant to multidisciplinary detailed design and construction. Fabio was the Senior Engineer in charge of the geotechnical design, which involved challenging ground conditions and extremely demanding settlement limits required by the machinery. 3D soil-structure interaction finite element analyses were carried out in order to provide a cost-effective foundation scheme.

**Seismic retrofitting of historical masonry house, The
Netherlands (2015-2016)**

Concept design of a retrofitting scheme for an historical masonry house in the presence of very compressible soil and seismic forces.

SAC - Fontanarossa Airport Masterplan, Catania (2015-2016)

New masterplan 2030 for the airport Fontanarossa in Catania: technical development of the new runway, new terminal building, ancillary buildings and services and environmental impact assessment of the new developments. Fabio supported the team with all the aspects related to geology, hydrogeology and geotechnics, including desk studies and high level technical feasibility studies.

La casa del Principe / Generali Real Estate, Milan (2015)

Preliminary design for a 14 storey buildings in the city of Milan. Fabio carried out the geotechnical design of the foundation and of the three-storey basement. Design included 3D finite element soil-structure analyses.

Al Amiri new Hospital, Kuwait City (2015)

Independent design review of the new hospital. Fabio has been reviewing all the geotechnical and soil-structure interaction aspects of the design, including advanced 3D numerical analyses.

Regione Piemonte Tower, Turin (2015)

Specialist geotechnical consultancy during construction phase supporting the site supervision team.

Autostrada Pedemontana Lombarda – Lombardia, Italy (2014, ongoing)

A new system of toll motorway in Lombardy that runs across one of the most densely populated areas in Europe, with a total length of 157km and a catchment area of some 4 million people, when completed it will be used by some 60,000 vehicles/day in average.

Following the carried out due diligence, Fabio has been the civil engineer in Arup's team carrying out monthly technical site monitoring during construction.

Salerno Rail Cover Est (SRCE), Salerno – Italy (2014, ongoing)

Detailed design engineering and site engineering design assistance.

Foundation and earth retaining walls design, structural analysis of reinforced concrete structures for the new underground roads and railway cover placed in the municipality of Salerno.

Structural health monitoring of existing buildings and structures in relation to the construction phases of the new structures.

The Floating Piers – Iseo, Italy (2014-2015)

Environmental work of art by Christo consisting of a temporary 70'000 m² public floating pier on the Iseo lake made of more than 200'000 high-density polyethylene cubes. Fabio was Arup deputy Project Manager, coordinated many technical challenging aspects of the project and supervised the numerical model. He also designed and interpreted the laboratory tests required for the model calibration. The installation was visited by 1.5 million people in two weeks across June/July 2016.

Copenhagen Metro – Cityringen, Copenhagen – Denmark (2014)

Design stage construction analysis of earth retaining walls for lift pits connecting the railway station to the new Copenhagen metro station. Evaluation of settlements and deformations during the construction phases in order to assess the serviceability of railways tracks.

**Allianz Tower Piled Raft Foundation, Milan, Italy
(2011-2014)**

Modelling of the piled raft foundation for a 200m high tower. Interpretation and back analysis of load tests on fully instrumented piles. Comparison between different foundations schemes, including connected and disconnected settlement reducing piles.

Relevant Projects with previous companies:

ENI Green Data Center, ENI (2011)

Site engineer.