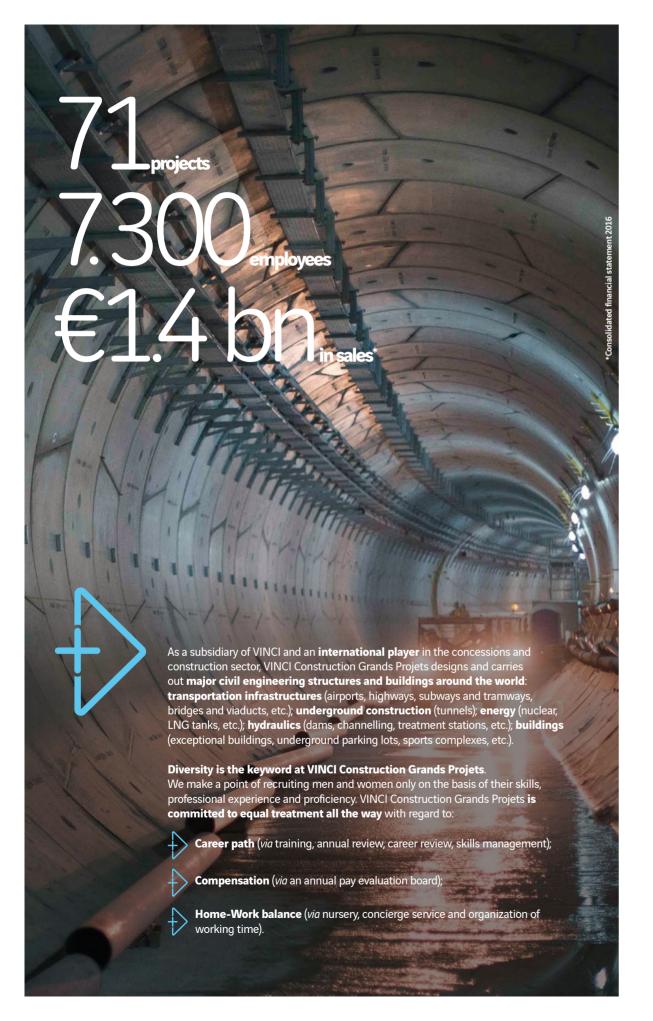






# TOGETHER WE BUILD MAJOR PROJECTS







## Join us!

Your are a **student or young graduate with two to five years of education** (second-year university level to Master's degree level) and you would like to gain international experience... then, ioin us *via*:



An internship (6 months);



A VIE, Volunteer for International Experience program\* (12 months).

**Enhance your experience** in various fields: construction project management/planning management; design (structures, methods, costing)/BIM; materials; HSEQ; administrative and financial management/management control.

\* Eligibility terms and conditions on www.civiweb.con

# The DIMT training program

This path of excellence is dedicated to young engineers starting their permanent work contract. This is done within the Engineering and Technical Capabilities department (DIMT), which is involved in the design of a project and provides technical support during construction works.

For approximately eighteen months to two years, these young people learn on the job in different key positions (structures, costing, and methods) before going on site for technical or construction management.

#### Caroline-Design engineer

After six months as an apprentice followed by a year and a half as an engineering coordinator, I embarked on the Engineering and Technical Capabilities department (DIMT) job rotation program.

This internal training program takes you through the three main technical components of civil engineering and public works: structural design, methods, and cost estimates. You rotate from one department to another about every six months. It's a tremendously formative program that usually meets trainees' expectations and gives you time to delve into the subject matter in depth.

I'm currently working on structural design. There, I check the dimensioning and plans issued by an American engineering firm for the Atlantic Bridge project in Panama, in particular for the central span of the cable-stayed bridge.



My near future is clearly mapped out. I'll finish the DIMT program: after structural design, it will be methods and cost estimates. My goal is then to make use of this multidisciplinary know-how in horizontal functions, such as project management.



Our methodology during the design and study phase is based on 3 areas:

**Coordination** of detailed technical studies.

**Definition of** major principles of foundations and stability. Sizing of cases, ironwork, and prestressing.

**Application of** implementation methods.



## **MASTER'S** DEGREE level

#### **STRUCTURE** ENGINEER

The structure engineer is a technical expert. He sizes, calculates resistance and optimizes the structure, while respecting the current regulations.

He works with the cost estimation engineer and the design drafter.

#### **METHODS** ENGINEER

Carrying out a major project requires tight organization. The methods engineer's role is to plan out this organization at the different phases, such as when setting up the work site or for equipment rotation.

He works with the cost estimation engineer and the design drafter.

#### **PLANNING ENGINEER**

During a call for tenders and/or when carrying out a project, the planning engineer establishes a detailed program and work sequences, follows and monitors project in order to update plans.

He works internally with those participate help implement the project (partners and subcontractors), and externally with the client and its representatives.

#### **COST ESTIMATION ENGINEER**

The role of the cost estimation engineer is imperative for winning contracts. He calculates the different costs that will make up the total offer sent to the client. He thus calculates the cost of labour, materials, equipment and related costs, while setting performance deadlines.

He works with the structure engineer and methods engineer.

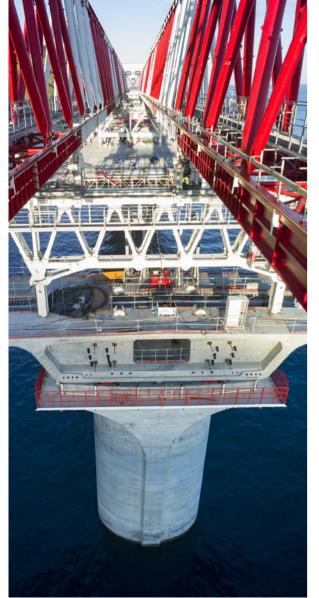
### **SECOND-YEAR** UNIVERSITY level

#### **DESIGN DRAFTER**

His trade involves drawing the initial plans of the project, specifically in terms of structures and site organization. He "draws" on his technical knowledge.

He works with the structure engineer and methods engineer.











I joined VINCI Construction Grands Projets under the VIE (Volunteer for International Experience) program, on the Hallandsås tunnel project in Sweden, as part of the equipment team. VIE is an excellent way to combine experience in another country with experience on a worksite. You are also given more responsibility and become autonomous more quickly. When I got back to Sweden, I joined the equipment and logistic division of the company's design department.

In charge of the worksite's equipment fleet, we work to optimize all phases of its life cycle (budget management, definition of adapted equipment, consultation with suppliers, negotiation, purchase or rental, commissioning, maintenance and repair, etc.). In the project design phase, we work in close collaboration with the project equipment teams, which requires a lot of travelling.

In my opinion, VINCI Construction Grands Projets is enriched by its intergenerational exchanges. Our more experienced co-workers are always happy to share their knowledge and expertise. It's a huge benefit.





I joined VINCI Construction Grands Projets as a methods engineer. In collaboration with the teams at the site, I'm working to prepare the worksite for the Atlantic Bridge in Panama, fine-tuning the implementation procedures, defining the work phases, and developing the provisional tools. In one year, I've already participated in projects involving a push-launched bridge, an immersed tunnel and an ærial tramway station, and I'm currently working on a tender for a project in the United States.

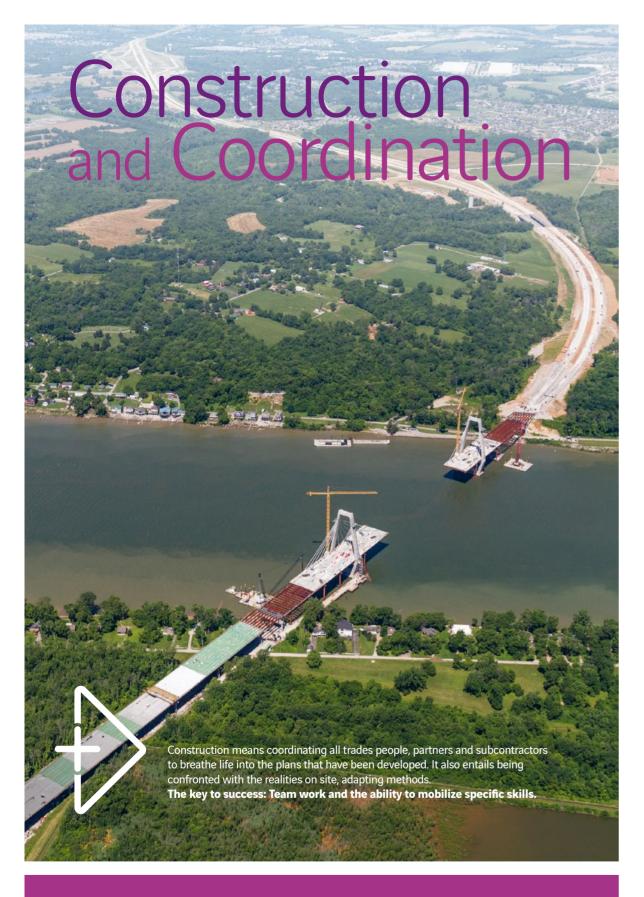
I am fascinated by construction in general. I especially enjoy methods because it's a technical trade and close to the execution of the work. You have to come up with ideas every day, optimize solutions and work in partnership with the various project participants.



Bojan Cost estimate engineer

For the last two and half years in the Cost estimate division, I've had the opportunity to participate in numerous missions, whether during the tender process, feedback, or directly on the worksite. I spend more than half my time outside of the office.

Depending on the type of mission and the size of the project, the daily tasks can be quite different, but generally speaking, the work of a cost estimate engineer involves estimating the project cost. To do this, we have to become involved in the life of the project very early on. We work in tight collaboration with all participants, both internally, with operational managers and technical teams (design, methods, planning, equipment, concrete or geotechnical specialists, etc.), and externally (suppliers, subcontractors, partners, etc.). You have to be flexible and curious, able to adapt to any situation and comfortable communicating with people who often come from different cultures and backgrounds.



Worksite accident prevention is an integral part of our management process. All must follow our "Safety First" policy. It is a source of progress, fosters work quality and contributes to the development of our personnel and the satisfaction of our clients.



# MASTER'S DEGREE level

#### **WORKS** ENGINEER

He is responsible for production and its related costs. He checks the quality of the work done, manages the contracts related to production and ensures safety is respected. **He oversees the site supervisors.** 

**+** 

He is in constant contact with the execution methods engineer, design office coordinator and materials engineer.

#### **PLANTS ENGINEER**

The plants engineer's role is **to define the materials to be used** for construction (cranes, form panels, barges, etc.) and **to evaluate their cost**. He is also in charge of making sure these materials are optimally used

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He works with the works engineer, performance methods engineer and site supervisors.

### TECHNICAL TRADES

MANAGER

Major projects do not only involve pouring concrete. The technical tradespeople, such as electricians and HVAC specialists, work together to make the structure operational.



He oversees the tradespeople, while monitoring work quality, cost and scheduling.

# **DESIGN OFFICE**COORDINATOR

Creating a work site requires very detailed implementation plans. These plans are prepared by the design offices that rely on the coordinator who **checks their quality** and accuracy within the set times.



He works with the works engineer.

#### **METHODS** ENGINEER

The job of the methods engineer is to ensure that the construction methods are implemented according to the methods planed during design. He permanently adapts these methods to the site's emerging constraints.

H aı

He works with the works engineer and plants engineer.

# SECOND-YEAR UNIVERSITY level

#### SITE SUPERVISOR

A genuine expert in construction techniques, the site supervisor manages the organization of production teams, equipment and materials, while abiding by the safety and quality rules.



Supervised by the works engineer, he applies the implementation plans and methods.

#### PLANT COORDINATOR

He ensures the availability and efficiency of plant stock and site installations. **He overviews the maintenance management plan and manages the teams** in charge of it.



Backed by the plants engineer, he coordinates the preventive maintenance management plan and the repairing actions on equipments and site installations.











# **Sophie**Site engineer

After working on a number of tenders, I joined the work teams at the Whitechapel underground station in London in December 2012, first as a site engineer and then as methods engineer. Since January 2014, I've been the section engineer in charge of a subcontracted lot involving the construction of a metal walkway above the existing underground line, a canopy, and all the access structures (stairs, elevators, etc.). My current assignments mostly involve managing the technical aspects and coordinating the design studies with the work. I'm also in charge of planning, quality assurance, liaising with the other projects lots, commercial follow-up with the subcontractors, etc.

Labour management in a multicultural environment is extremely enriching. You have to understand how others operate so that you can all work together toward a common goal.

### Jérémie

Financial controller

I began in June 2007 under the VIE (Volunteer for International Experience) program as a controller on the Trinidad and Tobago motorway interchange project. I was quickly given a variety of responsibilities, both in terms of regular management controller duties as well as accounting and human resources management.

Then, after 18 months in Libya, I joined the teams on a water works project in Qatar in 2010. Since April 2012, I've been working as financial controller for the light rail transit project in the new city of Lusail, where I supervise both management control and accounting. Regular reporting as well punctuates the month.

To establish a budget, we need to have an overall picture of the project. It's an exercise that puts us in touch with all the teams, particularly in construction, to keep our financial forecasts up to date.

# **Thomas**Site engineer

The SEA high-speed train line between Tours and Bordeaux is my first assignment so far. I began as an apprentice in worksite prep methods for a lot. Then I was in charge of planning (implementation, monitoring and adjustment of work schedules).

Then, I was a works engineer in charge of connecting the new line to the existing network. I served as the technical interface between the design studies, the project manager (SNCF), and worksite relations. I was also in charge of managing the budget, the personnel, the equipment and the materials.

The human factor is key to success: we work both with the journeymen and the managers. From a more technical point of view, I like the idea of starting from an initial plan, carrying out implementation studies to optimize the project, and then matching that to our construction methods; it's also about preparing and organizing the work in collaboration with the various worksite players to see the structure erected. This work is really my passion.

## Join us!

Submit your resume and find job offers on **www.vinci-construction-projets.com** 

### Find us on





VINCI Construction Grands Projets received the label



