* Name of the platform and a slogan : Civil Engineering Platforms : Engineering Solutions for a Better World
* About the plateforme : Our team of experts partners with clients to deliver exceptional geotechnical, concrete, and pavement engineering services, ensuring precise solutions for critical company needs.
* Our Expertise : Our team boasts extensive expertise in geotechnical, concrete, and pavement engineering, providing innovative solutions for challenging projects.
* Civil engineering advantages : Our civil engineering laboratory offers state-of-the-art equipment and experienced professionals to provide cutting-edge testing and analysis services. From geotechnical investigations to materials testing, we deliver accurate and reliable results to support your project success. Our commitment to innovation and quality ensures optimal solutions for your engineering challenges.

1. Expertise and Experience

Our laboratory boasts a team of highly skilled engineers and technicians with extensive experience in the field. This expertise ensures accurate and reliable results for all your testing and analysis needs.

2. State-of-the-Art Equipment

We are equipped with the latest testing equipment and technology, allowing us to conduct comprehensive and precise investigations. Our advanced facilities enable us to handle a wide range of projects with efficiency and accuracy.

3. Customized Solutions

We understand that every project is unique. Our laboratory offers tailored testing and analysis services to meet your specific requirements, providing you with the data needed to make informed decisions.

4. Commitment to Quality

We adhere to strict quality control standards and ensuring the highest level of accuracy and reliability in our results.

Provide fields of application of relative technologies within the platform

**1.Geotechnics**:

1.1. Soil Characterization and Analysis :

Advanced soil analysis methodologies to optimize the design and construction of foundations and

Providing innovative solutions to complex geotechnical problems through cutting-edge research and development.

**2.Traffic facilities:**

**2.1.** Asphalt Mixture Evaluation :

Advanced bitumen analysis methodologies to optimize road design and construction reliability

**3.Non-destructive testing:**

3.1. Structural Health Monitoring :

Implement state-of-the-art non-destructive testing techniques to assess structural integrity and

Provide accurate and reliable condition assessment reports for informed decision-making.

6) Research/Innovation domaines. (Additive manufacturing, ... and Composite materials :

- Geotechnics and cement

- Traffic facilities:

- Non-destructive testing

7)

- Geotechnics and cement :

* direct shearing device :

Measurement of the fracture characteristics of a sample of fine saturated soil subjected to direct shearing along an imposed plane, at a constant speed

* machine Los Angeles :

Determination of the resistance of aggregates to fragmentation.

* **Machine micro-Deval :**

Determination of the wear resistance of an aggregate sample

* Universal compression machines :

Determination of the compressive strength of cubic or cylindrical mortar and concrete samples.

* Casagrande apparatus:

A sample of mortar is placed in the copper cup and then divided mechanically using a special spatula. The following procedure involves indirectly moving the two sides of the mortar (earth or clay) by a series of blows until they come into contact. Then, the water percentage is measured by drying the two samples, and the liquid limit of the paste is noted.

* Concrete Aerometer:

The 8 liter concrete aerometer, with manual pumping, complies with standard EN 413-2 and incorporates a manual pumping device associated with a pressure gauge for direct reading of the percentage of occluded air. It works with dimensions of Ø 250×450 mm and a weight of approximately 14 kg

- Traffic facilities :

* Gyratory compactor:

The rotary compactor is used to imitate and reproduce actual compaction in pavement layer construction operations, with the aim of measuring the compactness of asphalt.

Compaction is achieved by the combination of rotary movement of the mechanical head and vertical pressure of the pressure plate, in accordance with ASTM D6925, AASHTO T312, SHRP M-002 and similar.

* Pneumatic compactor roller:

Pneumatic laboratory compactor with cable gland for, in particular, the preparation of rutting test specimens, in accordance with technological standards JTJ052 - 2000/T 0703 – 1993.

* Automatic ball and ring device:

The SYD-806E automatic ring and ball device is specially designed to measure the softening point of petroleum bitumen, in accordance with standard NF EN 1427 and other similar standards. This device is versatile and can be used to determine the softening point of various types of bitumen, such as road bitumen, coal bitumen, liquid petroleum bitumen, etc. It is widely preferred by bitumen producers, highways, bridge construction companies, higher education institutions, colleges, academies and research institutes.

* Cleveland Flash Tester:

Determination of the flash point and flash point of viscous asphalt, coal pitch and liquid petroleum asphalt with a flash point greater than 79°C.

* Bitumen aging test using RTFOT:

The RTFOT test (Rolling Thin Film Oven Test) aims to evaluate the aging process of bitumens. During the production of hot coating materials for road surfaces, the aggregates are heated to around 160°C and are in contact with the hot bitumen. This forms a thin film around the aggregates, causing the binder to age. This exposure to intense heat causes intense chemical oxidation. The RTFOT test is used to characterize this type of aging of bitumens, because it reproduces the oxidation and losses of volatile materials that occur during mixing in the asphalt plant and implementation on the road site

* rutting machine:

The wheel rutting test of a bituminous mixture consists of evaluating the deformation speed of the rut formed by the reciprocating movement of a test wheel, under precise temperature and load conditions. The measurement of this deformation speed, expressed in number of steps per millimeter of deformation, is called "dynamic stability". This test makes it possible to characterize the resistance of the bituminous mixture to deformation under load