



## BIO BASED GREEN FERTILIZER PRODUCTION FROM LIVESTOCK MANURE - INTERNSHIP



### GOAL AND ACTIVITIES

The goal of this internship or graduation project is to develop and further optimize the Nijhuis system for nutrient recovery. During this internship assignment you will conduct a series of laboratory experiments, to support the design of a pilot/full scale plant. In addition, you will prepare an economical study including an estimation of the investment and running costs to compare the green fertilizer production to conventional fertilizers.

### BACKGROUND

The agricultural sector has a large environmental impact. On a global scale, the agricultural sector is responsible for around 30% of the total greenhouse gas emissions, while eutrophication and surface water pollution are an issue on a regional scale. Nijhuis works on circular concepts to reduce this environmental impact by refining phosphorus, nitrogen, potassium and clean water from the surplus of livestock manure and producing bio based green fertilizers. The produced green minerals ensure regional balanced fertilization by dosing sufficient individual nitrogen, phosphate or potassium fertilizers for pastureland or arable crops. This will reduce the rinse of fertilizers into ground and surface water and reduces the use of the chemical fertilizers.

### WHO ARE WE

Nijhuis Industries delivers 'solid solutions in a fluid world' as a response towards a greener economy. Nijhuis is aiming to turn cost centres into profit centres with solutions for sustainable water use and resource recovery. To accommodate the customer requirements, Nijhuis offers Design, Build, Finance, Operate and Maintain (DBFMO) installations to meet today's challenges, as well those of the future, across a wide range of industries and municipalities in today's 'fluid' world. With more than 2400 references sites and activities in over 110 countries around the globe, it is our ambition to help customers and deliver solutions to:

- Reduce the amount of (waste)water and effluent charges;
- Reuse treated effluent or process water;
- Recover water and resources from your waste and (waste) water.

### INTERNSHIP SPECIFICATIONS

**Type of education:** BSc or MSc Chemical, (Bio)Process or Environmental Engineering

**Location:** Nijhuis Water Technology, Doetinchem

**Duration:** 4 – 6 months

**Start:** September 2021

### MORE INFORMATION AND APPLICATION

If you are interested in an internship at Nijhuis Water Technology please send the following to Internship. [NWT@nijhuisindustries.com](mailto:NWT@nijhuisindustries.com):

- your motivation
- CV
- the period and duration of your internship