

»» DEG evaluation results



Enabling higher yields and net increase in farmers' income

The professionalization of the Brazilian fertilizer producer Aminoagro leads to higher development impacts

This report is a result of DEG's evaluation work regarding development effectiveness. DEG's monitoring and evaluating team checks at regular intervals whether the transactions it co-finances help to achieve sustainable development successes and points to ways of making further improvements for DEG and its customers. To ensure the independence of evaluation results, external consultants support the work of the team.

Significant contributions to this issue were made by:

steward redqueen

Steward Redqueen is a specialised consultancy that works across the globe advising organisations on impact and sustainability

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DEG – Deutsche Investitions- und
Entwicklungsgesellschaft mbH
Kämmergasse 22
50676 Köln
Telefon 0221 4986-0
Telefax 0221 4986-1290
evaluation@deginvest.de
www.deginvest.de

EXECUTIVE SUMMARY

In August 2013 DEG invested in Aminoagro, a Brazilian micronutrient fertiliser company. The case of Aminoagro exemplifies DEG's ability to co-invest alongside a local private equity fund, Brazilian agribusiness-focused fund Aqua Capital in this case. DEG holds a direct and an indirect stake in Aminoagro: directly through its joint investment with Aqua and indirectly through DEG's commitment to the fund. In addition, Aminoagro provides a clear case example of the transformation process a company has to go through from being a family-owned business to a formally run company. Driven by Aqua, a professionalization plan was rolled out right after investment and is implemented at a high pace. The roll-out of the plan changed the company in many aspects. While positive results are clearly visible, the process also has its challenges. DEG holds a Board seat in Aminoagro, and actively contributes to the company with boardroom advice and technical assistance in the field of E&S.

INTRODUCTION

Aminoagro

Founded in 2001, Brazilian company Aminoagro is a manufacturer of micronutrient fertilisers. Micronutrients are essential for plant growth and play an important role in balanced crop protection. Micronutrients can be applied through soil application (by mixing them with regular fertilisers) or through foliar sprays. Aminoagro specialises in higher value foliar fertilisers. Its foliar fertilisers are applied across grains, oilseeds, vegetables and fruits, and it is a leading producer of bio-stimulants.



Aminoagro has one of the most complete product ranges in Brazil's foliar fertiliser market, which is estimated at around BRL 1.800m (USD 600m) in annual sales. In addition to diversified micronutrients (such as boron, copper, iron and manganese), it specializes in biostimulants such as amino acids and seaweed extracts, which are combined according to innovative formulas developed by the company. While revenues in this high value added part of this segment have grown in double digits annually over the past decade, the market is still emerging. Penetration is estimated to be just over a quarter of the potential market size.

The foliar fertiliser segment within the micronutrient market is highly fragmented. There are over 50 registered foliar fertilisers companies, but fewer than 20 have certified products, rigorous product development and integrated manufacturing processes. Aminoagro currently has a 3% market share, and the objective is to become a top-3 player in the market through organic growth and/or acquisitions.

Aminoagro established its current production plant in 2007 in Cidade Ocidental, located just south of Brasilia in the state of Goiás. The location provides easy access to the growing Central West, North and Northeast agricultural regions of Brazil, and benefits from a lower tax regime. Recently it established a new head office in Idaiatuba (near Sao Paulo), close to Brazil's main R&D centers for micronutrients.

The plant is fully vertically integrated. Its activities range from chemical processing and mixing to packaging and transportation (the company has an own fleet of 12 trucks). This enables the company to capture value along the entire production and distribution chain, deliver faster than competitors – especially useful during peak harvest – and have full control over the production process.



Aminoagro's production plant in Cidade Ocidental

Aqua Capital

DEG co-invested in Aminoagro with Aqua Capital, a Sao Paulo-based private equity fund. Aqua targets mid-sized, often family owned companies in the secondary agribusiness and food value chain. This means that the fund does not invest in primary agribusiness such as farmland, but sectors such as food processing, logistics, agri equipment, animal nutrition, crop protection or seeds. These sectors show high growth potential but are fragmented and have insufficient access to equity or quasi equity finance. Its geographic focus is primarily on Brazil, but also includes neighbouring countries.



DEG is an anchor investor in Aqua, having committed USD 12.5m at first close in May 2012 (total fund size USD 173.4m). Within DEG's portfolio, Aqua is the only agribusiness fund in Latin America, a sector with strategic importance to global food production. Other LPs in the fund include Latin America-focused development banks IDB and CAF. DEG expected Aqua to grow and professionalise companies (including improvement of ESG standards), consolidate markets and create jobs.

DEG also committed to Aqua in order to gain access to mid-market companies that otherwise would be hard to reach. It therefore secured preferential co-investment rights. DEG also holds an observer seat in Aqua's investment committee, which is actively used by an investment manager of DEG's local office in Sao Paulo.

THE INVESTMENT

Background

Aminoagro was 83.5% owned by a family (consisting of nine siblings) and for 16.5% by Ricardo Carreon, founder and the company's current CEO. The family did not actively focus on Aminoagro and used the company's balance sheet for financing other businesses. This withheld Aminoagro from using its positive cash flow for investment in new products, despite concrete plans (e.g. for products in the biotechnological space) and available land for expansion of the plant.

The deal

This situation of suppressed growth potential was frustrating for CEO Ricardo Carreon and Aminoagro as a whole. He therefore persuaded the family to sell its stake in the company, to which it reluctantly agreed. Through an external advisor appropriate investors were sought and an Aqua-led con-

sortium (which included DEG) proved to be a good fit, alongside two other serious candidates. The consortium was selected as a result of its know-how and ambition for the company, despite not offering the highest investment amount.

The investment was made through an SPV consisting of Aqua, DEG and a third co-investor (Quilvest, also a fund LP). Together they form a holding company that controls 86% of Aminoagro. CEO Ricardo Carreon holds the remaining 14% stake in the company. DEG committed BRL 16.9m (equivalent USD 5.6m), through which it de facto holds a 24% stake in Aminoagro (albeit indirectly through the holding). Aqua has control over the holding company, but DEG has customary minority rights.

Rationale for investment

DEG decided to invest as the investment would enable the company to grow and have a more efficient management. Together with Aqua and Quilvest, DEG was able to provide scarce equity funds to a local, medium-sized business with a large client base in less developed regions of Brazil. DEG also had the opportunity to actively contribute to the company with financial, commercial and sector know-how.



Aminoagro stand at an exhibition

In addition, DEG expected Aminoagro to have positive development effects:

- *Improve food security:* Aminoagro's fertilisers increase agricultural productivity;
- *Create jobs:* it was expected that the company would double its employment;
- *ESG:* DEG had the opportunity to add value to the company by improving ESG standards.

PROFESSIONALISATION PROCESS

Before investment, Aminoagro already was a stable, steadily growing and relatively well-run company. However, most management processes were executed in an informal way. Therefore the investors laid down a professionalization plan, for which implementation started right after investment. Most measures were implemented in the second half of 2013 and 2014, under a combined 180-day plan, which was followed by an annual business plan based on a long-term value creation plan. The professionalization process entails changes in management and organisation, commercial operations, finance and control, supply chain management and environmental and social management.

Management and organisation

Aminoagro was managed relatively well, albeit rather informally from its plant in Cidade Ocidental. There was a heavy reliance on the company's CEO, as there was no CFO, COO or dedicated R&D function. There were no formal board meetings and no formal business planning. After investment, the following operational measures were taken:

- *Senior management:* the investors recruited a new CFO, National Sales Manager and R&D manager, while one of the Directors at Aqua became Aminoagro's COO;
- *Head office:* a new head office was established for Aminoagro in Indaiatuba, a city around 100 km northwest of Sao Paulo. Senior management, sales, business development and part of administration were moved there. There were several reasons for the move: better ability to attract and develop talent, greater proximity to Brazil's R&D centres for micronutrients as well as financial institutions and easy access to Campinas airport;
- *Board meetings:* bi-weekly executive team meetings, monthly finance meetings and formal board meetings were introduced;
- *Business planning:* a first formal business plan was written and a new enterprise resource system (ERP) was developed, which is currently being implemented;
- *Human resources:* a people management system was rolled out with objectives for key persons which are linked to performance-related compensation;
- *Formalization:* all functions were formally contracted (as opposed to informal labor contracts prone to litigation and low employee loyalty). Through careful implementation under a profit-sharing mechanism, a lower tax basis was obtained.
- *Cultural transformation:* Aqua implemented, with support from an external consultancy, a management system which broke down the company's objectives into team and individual goals for all three top management team levels. The program went as far as aligning compensation at the individual level, and generating an on-going methodology to communicate progress, correct issues and improve performance.
- *Risk management:* an external consultant reviewed all major operational risks.



Three zones of the Aminoagro plant: mixing, packaging and storage

Commercial operations

A well-trained and geographically spread salesforce is crucial to the success of Aminoagro. The salesforce forms the bridge between the company, its distributors (e.g. specialised agri equipment stores) and clients directly. The sale of Aminoagro's products is highly technical and clients first like to test the effects of the fertilisers on crops through field trials, which takes time. Therefore the members of the salesforce need to be highly skilled agronomists. The salesforce is spread out

throughout Brazil, in order to be close to clients. Ramping up this salesforce was a key action after investment:

- **Salesforce:** the salesforce was expanded from 2013 to 2015 from 21 to 70 members and changes were made to the structure, composition and compensation. The salesforce now consists of a National Sales Manager, five Regional Sales Managers, 43 Technical Sales Representatives and 21 Assistant Technical Representatives;
- **Field trials:** the (free) field trials are key to converting farmers into customers over successive crop cycles. The number of field trials was dramatically increased from around 200 to a total of 782 in 2014, and their quality improved through careful planning, results measurement and accountability;
- **Distribution:** the distribution network was increased from 70 to over 90 independent distributors throughout Brazil. Underperforming channels were cut and the profile of the new channels consists of larger, more professional firms;
- **Education:** in order to ensure quality of the sales team, the “Aminoagro School” was established, delivering over 60 hours of lectures to salesforce members.



Map of the salesforce throughout Brazil

Supply chain management

Aminoagro sources 80-90% of its basic raw materials such as manganese and potassium from China. The remainder is imported from countries including Canada (seaweed), Germany (boron), the United States, Russia, Argentina and Brazil itself. As most of the company's working capital is required for sourcing materials, several measures were taken to optimise supply chain management:

- **Credit terms:** credit of 90+ days was negotiated with most suppliers;
- **Inventory:** more tight inventory management was put in place;
- **Logistics:** increased focus on most economic logistics and port of entry.



Examples of raw materials: potassium from China and seaweed from Canada

Finance and control

In the field of finance and control the company had to transform from a family business with informal financial controls and no third party audits to an organisation with a fully professional finance department. The following measures were taken:

- **Financial management:** under a new CFO better cash flow tracking and more formal and consistent financial reporting were introduced;

- **Financial audit:** Deloitte was selected as auditor, the first full-year audit is currently being finished;
- **Debt optimisation:** the debt tied to the previous owners was paid off and credit lines were finalised with leading banks (e.g. Santander, Citibank), reducing net debt levels as well as average cost of debt;
- **Fiscal optimisation:** the company's tax benefit plan with the state of Goiás (Plano Produzir) was extended until 2040. With the aim of supporting Goiás-based businesses, Plano Produzir reduces sales tax from 20% to 4%.



Storage tanks at ESDD: without containment wall



Storage tanks during visit: with containment wall

Environmental and social

Aminoagro is categorised by DEG as B+ (environmental), B (social) and G0 (gender). DEG assisted Aminoagro with its E&S management by financing part of the environmental and social due diligence (ESDD). The main environmental and social (E&S) aspects identified are related to hazardous chemicals, air and wastewater emissions, water consumption, fire risks and possible soil contaminations. Other E&S aspects are energy and resource efficiency, OHS, solid waste management, labour and transportation risks.

Before investment, there was a lack of some environmental and social permits, while there were improvement opportunities in the treatment of wastewater. Aminoagro only had basic environmental, human resource and OHS management systems, although its dedicated plant manager controlled most aspects in an appropriate manner. Following up on recommendations of the ESDD (which was initiated and funded for 50% by DEG), Aminoagro took the following measures:

- **Responsibility:** the plant manager was formally assigned as E&S manager;
- **Management systems:** the company used the ISO 14001 and SA 8000 standards as guidance to the formalisation of an environmental and social management system which complies with the IFC Performance Standards. The company committed itself to get ISO 14001 certified by latest 2017;



CIPA notices are visible throughout the plant

- *Wastewater*: an external consultant was hired to analyse wastewater. Pollutants were found to be within national regulatory limits. The company also improved its wastewater treatment, as water used to clean reactors was stored and re-used, while other used wastewater goes through a filter;
- *Soil analysis*: a soil analysis was performed in the area where effluents and rinsates were discharged;
- *Spill prevention*: a containment wall was constructed around the solutions storage tanks;
- *Emergency prevention*: an Internal Commission for Prevention of Accidents (CIPA) was established, which includes training on issues such as fire safety, regular meetings and posters with emergency contacts;
- *Employee grievance*: a complaints and suggestions box was introduced;
- *Procurement*: a policy for key suppliers was adopted.

CHALLENGES

The professionalization process, which started almost two years ago, is still ongoing. The process has transformed many aspects of the company. The resulting more professional, structured and meritocratic working environment of the company is seen as a positive development by most employees. This was critical in generating industry-leading growth in 2013-15. However, the process put severe pressure on the company and its staff, posing several challenges:

- *Pace*: the pace of the changes was a constant point of discussion between the investors and CEO. The investors pushed management to implement proposed plans as quickly as possible, while the CEO wanted to ensure the transformation was done in a more moderate way. This put severe pressure on certain parts of the company;
- *Structure*: the more structural approach of working, such as through regular financial reporting, required a change in the mind-set and working structure of employees.
- *Personnel*: it was challenging to find and integrate the new senior management members and large amount of new salesforce members. At the same time, around 20% of personnel left, both forced (due to underperformance) and voluntarily (due to inability to adapt to new working environment);
- *Communication*: The overall most challenging part was for the CEO and plant manager to properly communicate all changes to employees, both in terms of rationale for change and implications.

The changes mostly affected Aminoagro employees in management and administrative functions. On the production side change has been less intensive: the number of workers at the plant has remained the same and the formalisation process has had a limited effect on their day-to-day activities. This also underscores the untapped potential of the company under the previous owners.

DEVELOPMENT IMPACT

DEG targeted three main types of development effects for Aminoagro, which all materialised:

- *Improve food security*: the increased yields contribute to improving food security in Brazil, as Aminoagro's fertilisers increase agricultural productivity between 3% and 15% (depending on crop and product use);
- *Create (decent) jobs*: the investment in Aminoagro led to the creation of around 50 additional jobs through the hiring of agronomists for the company's salesforce. These concern high skilled jobs, as the agronomists in the salesforce often are university graduates;
- *ESG*: Aminoagro significantly strengthened its ESG management practise on multiple aspects (as described in more detail above), which was to a large extent driven by DEG's initiative and financial backing of the ESDD;
- *Additional income*: Increased crop yield generate additional revenues for farmers.



Foliar fertiliser being mixed for spraying

CONTRIBUTION BY DEG

Role of DEG at investment

DEG had a crucial role in the deal. The requested investment amount was above the envisaged individual company investment size for Aqua, and the fund therefore needed co-investors to be able to put in a qualifying offer. As a result of DEG's decision to invest, the Aqua-led consortium was able to offer the required investment amount. In addition, DEG's good reputation as well as its ability to add value (notably in the field of ESG) substantially strengthened the extra-financial aspects of the offer.

Added value by DEG

DEG is an investor with a significant minority stake (i.e. 24% de facto through holding company) and a Board seat in the company. In practice, the Board seat is actively used by DEG's regional office. DEG added value to Aminoagro in several ways:

- *Strategic and operational advice*: through its Board seat, DEG provides useful strategic and operational advice to the company. Both senior management as well as Aqua Capital regard DEG as a well-respected sparring partner, asking the right questions and providing constructive criticism. This includes challenging Aqua's push for the fast-paced professionalization measures at Aminoagro within the holding company and providing on-going analysis and feedback of potential bolt-on acquisitions;
- *Financial advice*: DEG advises Aminoagro on how to communicate with banks in the rearrangement of its debt;

- *Signalling function*: the shareholding of a major financial institution as DEG in Aminoagro signals confidence to the market;
- *E&S*: DEG funded 50% of the E&S due diligence (ESDD) through a technical assistance programme. The ESDD resulted in an action plan with clear activities and timetables, which has resulted in several improvements. Aminoagro's CEO indicated that without DEG the company would not have approached E&S issues in a formal and thorough manner.