BELGIAN ASSOCIATION OF DIGITAL TECHNOLOGY LEADERS

Beltug Position

Blockchain and the government

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Executive summary

Blockchain is much more than just a fad. In the coming years, blockchain will play a transformative role in more and more sectors, but for this to happen, the support of government– national, European and global – is critical. Blockchain is becoming a full-fledged technology for organising transactions in various sectors, and has the potential to fundamentally transform several industries.

"Blockchain is a foundational emerging technology of the Fourth Industrial Revolution, much like the internet was for the previous (or third) industrial revolution.", World Economic Forum

There is a lot to accomplish, at the regulatory level as well as the technological. For Belgium to ensure its continuing competitivity, the government must take an active stand. We need to ensure that the right competencies are available. At the European level, as well, we should be represented where blockchain decisions are being made. Our country will thus be in a position to provide the needed input and feedback on blockchain initiatives and projects in Europe. We should also monitor developments in other countries. When the legal framework is not adapted to modern technologies such as blockchain, and becomes an obstacle to innovation, we depend on government intervention.

"By 2025, the annual business value added by blockchain will be more that $175 billion", Gartner

The Beltug Blockchain Task Force is committed to contributing to and cooperating in this evolution. However, the active support of the government is essential if we want to play a relevant role at the European and global levels in this forward-looking and innovative field.

About Beltug

With over 1700 members from 460+ companies, Beltug is the largest Belgian association of Digital Technology leaders. We aim to tackle the challenges of the connected organisation, covering topics such as software asset management, hybrid IT, cyber security, IoT, smart collaboration, privacy, blockchain, data governance, and many more.

We defend the interests of our members, develop positions, and support knowledge exchanges between our members. Each year, we organise more than 30 events for exchanging experiences. Beltug also plays an active role in euro.digital, which represent business ICT users at the European and international levels. www.beltug.be

1   Blockchain is part of a country's infrastructure – government commitment is critical

In the years to come, blockchain will play a transformative role in more and more sectors. No longer limited to bitcoin and other cryptocurrencies, blockchain is on its way to becoming a fully fledged technology for organising transactions in various sectors: financial services, energy, real estate, import/export, etc.

Blockchain has the potential to fundamentally transform a number of industries. Its development is running at full steam, with concrete initiatives in the Netherlands, Luxembourg, Spain, United Kingdom, Italy, Slovenia, Malta and Estonia, in particular.

A mature market for blockchain applications does not yet exist. Companies are feeling their way through trial and error. The figures from Beltug's current survey confirm this: more than one respondent in five (22%) has a blockchain-linked project ongoing.

Blockchain offers an independent data system in which different parties can record, validate and verify their information, creating the prospect of faster, more efficient and more transparent transactions. Reliable and traceable transactions between different parties would no longer require the intervention of intermediaries.

Blockchain can contribute very significantly to building the climate of trust that is such a necessary component of the digital world.

Some examples

Transparency in the food chain: Let's look at the example of the Fipronil eggs contamination incident. During this incident, there was no way to trace the contaminated eggs. As a consequence, all eggs had to be withdrawn from the store shelves. If the different stages in the food chain, from producer to supermarket, had been on a blockchain, the at-risk eggs could have been traced with a degree of certainty and precision. These eggs could have been removed from circulation, leaving the safe eggs.

Home sales: The notary plays a key role as a confidential and independent advisor, providing the information people need at important moments. Blockchain can provide more insight into processes and how to implement them more efficiently. The Federation of Notaries (Fednot) is studying whether and how notaries can use blockchain and artificial intelligence to provide an unprecedented degree of legal precision in their role as independent advisors. The Flemish government has a Proof of Concept for housing and blockchain.

Healthcare: The Mijn Zorg Log application (from the Dutch Healthcare Institute) provides a digital log that is shared by patients, healthcare providers and family, to ensure that everyone has access to the same, up-to-date information. The patient decides who may access what information.

Development aid and grants: Blockchain makes it possible to trace flows of funds, increasing transparency and confidence, and decreasing administration. Belgian NGO 'Via Don Bosco' uses blockchain to provide transparency on the flow of funds to the end recipients.

Financial sector: Isabel, together with a number of banks, is working on the Know Your Customer project, which uses blockchain to enable companies to manage their data themselves and to share it with their banks, so that they no longer have to update their data each time with each bank.

> "The Libra, the cryptocurrency Facebook intends to launch, will be built on an open source blockchain, and demonstrates our firm belief in blockchain technology."

There is still much to do in the field of blockchain, both in terms of the regulatory environment and the technology. Companies, government and knowledge centres must be able to experiment together, within consortia and ecosystems, and to learn from the experiences of each other. Belgium must not miss out on this opportunity.

To develop a favourable position, we need government commitment. We advocate for the public authorities to be vigilant, to follow the changes, to develop competencies in blockchain, and to establish or to actively promote partnerships. In situations where the regulatory framework is not adapted to modern technologies such as blockchain, and thereby obstructs innovation, we expect the public authorities to intervene. Furthermore, it is important that European developments are not only monitored by Belgium, but that some of these developments are initiated here.

> "It's no longer just about bitcoins: far from it."

Of course, blockchain is not the only solution for validating transactions. Therefore, it may not be interesting for every company to invest in it. But the potential is significant and our economy has much to gain from the joint efforts of as many parties as possible in its development, in possible use cases, in combination with artificial intelligence, the Internet of Things, etc.

No-one can predict today what solutions will ultimately be found, but by facilitating and stimulating the ecosystems and digital transformation, our companies and our government can take important measures to evolve towards new ecosystems and new implementations.

2   We need action on multiple levels

2.1 Awareness is key

A first important breakthrough must be made in the awareness about blockchain's potential. Through successful projects, we want to show the potential for the government and the economy. And by acting as a catalyst for new projects, such as those related to digital identity, government can help to get things done faster.

2.2 Regulatory changes will be necessary – with regulatory sandboxing as an intermediary stage

The regulatory framework is critical for the continuing development of blockchain. It isn't yet possible to definitively define the necessary and relevant legislative changes needed, but this aspect will become clearer during the next Parliament term. Therefore, it is important to be able to act in time.

Beltug calls for a policy of regulatory sandboxing for blockchain in Belgium. It is important to create a regulatory framework that promotes innovation, in which legislation does not impede either this innovation, or digital transformation. Blockchain is essentially a cooperation between different partners, ranging from companies to sectors. This requires the creation of a level playing field that allows companies to collaborate and to compete in complete safety. A regulatory sandbox will enable this.

In the sandbox, tests can be carried out with a clear objective and a limited scale. In this way, companies can test their innovations without being required to comply with the existing laws.

By creating a legal framework within which innovative applications (such as blockchain) can be tested, the legislature will have a unique overview of what is happening in the market. Currently, there are sometimes legislative obstacles.

2.3 Blockchain and GDPR/privacy

Fundamentally, Blockchain involves data storage and transactions in a chain. Today, there is considerable uncertainty about how the principles of the GDPR can be applied to blockchain, although there are solutions that merge the two. As has already happened in other countries (France, for example), we are waiting for the Data Protection Authority (DPA) to provide advice and assistance to explore this question further. Here as well, the European context is significant.

Blockchain-based identity and the GDPR have the same goal: to give end-users more control over their information.

2.4 New forms of responsibility

Blockchain makes it possible to evolve towards a system of responsibilities in a more decentralised environment. This creates new challenges, which will then require new rules. What about the probative value of smart contracts? What will be the impact for the courts? What about recognition of the blockchain mechanism during an audit?

2.5 Stimulating innovative blockchain projects

One way to encourage the proliferation of new ideas could be the creation of a 'fund', such as the fund for Smart Mobility and the Belgium Digital Skills Fund. The fund could make a call for innovative blockchain projects and, following a jury selection, allocate resources to realise specific projects with a high social relevance. In this way, the government would facilitate and support the adoption of the technology, while learning from the experimentation. The collaboration that is critical for blockchain could thus be stimulated.

3 Blockchain in the government

Blockchain has significant potential for use by government.

In various blockchain use cases or ecosystems, the government is an important and often neutral party whose active participation can facilitate innovation and optimisation possible.

4 International/European dimension

Blockchain is a prominent topic in most, if not all, European member states. Already, we can see that changes are happening at different rates of speed, but also that differing regulatory framework are being established in different countries (Italy and Malta, for example), even before agreements have been concluded at the European level. Germany will soon present its blockchain strategy. The Dutch government is participating in the Dutch Blockchain Coalition. Developments at the European-level will have a major impact on the opportunities for Belgian companies. The EU expects all member states to actively participate in the blockchain projects being launched, and to ensure they are monitored. Belgium should not miss this opportunity to be a part of the lead pack.

5 Beltug's Blockchain Task Force: a platform for stakeholders

Beltug has taken the initiative to bring together Belgian blockchain experts from various companies and institutions. More than 40 experts from different sectors and backgrounds (IT, business, legal, etc.) have shown their interest.

This has led to the creation of the Beltug Blockchain Task Force, as a knowledge centre and forum where knowledge can be confidently shared. What is the status of blockchain? What concrete initiatives and consortia exist? What are the newest possibilities? What experiments are taking place and who is ready to go into production? What are the stumbling blocks?

With this forum as a starting point, Beltug intends to be a discussion partner and advisor for the blockchain-related issues and problems facing companies and government. We want to contribute to speeding up the adoption process, in a structured and qualitative way. Cooperation between the government and Beltug can lead to a win-win situation for everyone involved.

Not only can we contribute to the awareness-building for the general public, but we can also present use cases to preselected target groups within the government, for example court officials.

With our available expertise, we can act as a knowledge centre. We are already working intensively on:

· awareness-building (we have a panel of experts who can consult with the government, and we are preparing an overview of the topics that can be used by secondary schools and universities for their instruction on blockchain / digital innovation)
· the business case for setting up a blockchain consortium
· blockchain for digital identity.

It is important that the Belgian government develop or bring together the necessary competencies, and that it be well represented at the European level where decisions are made about blockchain. In this way, our country can provide the necessary input and feedback on European blockchain initiatives (European Blockchain Partnership, European Blockchain Service Infrastructure, the new research project on the Single Digital Gateway and Market, etc.), projects and possible regulations. In addition, it is relevant to monitor what other countries are doing.

The Blockchain Task Force is motivated to contribute and cooperate in this development. However, the active support of the government is essential if we want to play a relevant role at the European and global levels in this new, forward-looking, innovative field.

Interesting background information

OECD: Blockchain Primer

OECD: Blockchain and distributed ledger technology –additional information

World Economic Forum: Fourth Industrial Revolution for the Earth Series – Building Block(chain)s for a Better Planet

Blockchain and the GDPR: eublockchainforum