



Digital Transformation Monitor

Belgium: “Made Different”

May 2017





© Life of FoxPhotos.com



Belgium: “Made Different”

Fact box for Belgium’s Made Different policy initiative

Policy Lever(s)	<p>Mainly funded by private actors; Strong focus on the development of new technologies although upskilling of workforce is also considered; Bottom-up implementation.</p>
Funding Model	<p>No dedicated funding scheme; several public grants available; participating companies need to cover a share of participation costs.</p>
Target audience(s)	<p>Belgian manufacturing companies from all economic sectors, in particular SMEs.</p>
Concepts & Focus Areas	<p>Made Different defines the concept of ‘Factory of the Future’ based on seven key transformations including both technology and social innovation dimensions.</p>
Key drivers	<p>High level of mobilisation from industry partners; Factory of the Future Awards as a very attractive marketing tool to businesses</p>
Key barriers	<p>Relative low-level of funding dedicated to manufacturing SMEs.</p>
Implementation strategy	<p>Initiated and designed by private actors</p>
Results achieved	<p>265 companies currently involved in the programme, out of which 65% are SMEs. 16 companies have been awarded the label ‘Factory of the Future’.</p>
Budget	<p>No dedicated funding scheme</p>
Uniqueness factor	<p>Industry-driven initiative including companies from all economic sectors; Development of a tailored assessment tool.</p>
Value-added for policy-makers	<p>Flexible and light structure facilitating its replication; Bottom-up approach enabling policy coordinators to collect feedback and data from the ground.</p>
Expected Impact	<p>Modernisation and digitisation of Belgian manufacturing industry; increase of its overall competitiveness.</p>

Source: Digital Transformation Monitor

The Made Different initiative was originally launched in 2013, in Flanders, with the aim to increase the competitiveness of the manufacturing industry by supporting the digital transformation of production processes. The overall goal of this initiative is to transform manufacturing companies into 'Factories of the Future'. Wallonia followed a similar path more recently, with the implementation of the Made Different initiative in January 2017.

Made Different is mainly an industry-driven programme with a very flexible structure which follows a bottom-up approach. The main activities of the Made Different initiative involve the organisation of awareness-raising events, the provision of tailored and long-term guidance services to companies willing to transform their production processes (i.e. up to around two years). Also, The 'Factory of the Future Awards' are organised every year in order to distinguish companies that successfully achieved their transformation.

Made Different has so far proven to be a successful initiative, in particular in Flanders while the programme is still relatively recent in Wallonia. Indeed, the business community has demonstrated a strong interest in participating in the initiative, in modernising their manufacturing processes. Several companies have already received the Factory of the Future Award.

Boosting industrial modernisation

In May 2011, the Government of Flanders published a White Paper *A new industrial policy for Flanders* in which it formulated a coordinated vision of the future of the industry in the region, notably through the transformation of Flemish industry towards Industry 4.0.

In particular, this plan aims to transform Flemish industry into 'Factories of the Future', a concept based on the following four key pillars:

- (1) a strong innovation and design competence,
- (2) customer orientation and networking,
- (3) energy- and material-efficient technologies and
- (4) creative human potential.

One of the key proposed actions was to set-up a guidance programme for disseminating good practices towards SMEs to become Factories of the Future.

Following-up on the White Paper, Sirris and Agoria, two Belgian organisations specialised in providing coaching and guidance services to companies in order to implement technological innovations, initiated discussions with the government with a view to establishing a dedicated industry-driven support platform.

After two years of discussion, Made Different was launched in Flanders in 2013.

In 2015, the study *Regards sur l'Économie Wallonne: Économie par le Numérique*, published on behalf of the Walloon government, showed that the share of industry in the regional GDP was continuously decreasing.

The study also demonstrated that the level of adoption of digital technology by the regional manufacturing industry was dramatically low.

In order to address these challenges, the Walloon government launched a new Digital Plan (*Plan du Numérique*) in 2016, which, inter alia, aims to accelerate the digital transformation of regional companies. Taking stock of the success of the initiative in Flanders, the Walloon government, in collaboration with Sirris and Agoria, set-up the 'Made Different-Digital Wallonia' programme in January 2017.

Transforming companies into Factories of the Future

The overall objective of Made Different is to strengthen Belgian manufacturing industry, foster its move towards Industry 4.0 and notably to support the digital transformation of its production processes.

In particular, the initiative aims to achieve the transformation of manufacturing businesses into 'Factories of the Future' through awareness-raising activities and the provision of tailored coaching support and guidance.

Policy levers for Belgium's Made Different



Source: Digital Transformation Monitor

Indeed, considering the relatively high cost of labour in Belgium, a great emphasis is put on reducing production costs by, inter alia, digitising operational processes, further integrating cyber-physical systems as well as by upskilling the workforce and lowering energy consumption. The 'Factory of the Future' model, clearly defined by the programme, includes seven key dimensions related to both technological and social innovation.

Bottom-up and industry-driven

In terms of funding, Made Different is mainly an industry-led initiative. Indeed, despite the involvement of the Flemish and Walloon governments in coordinating the initiative (i.e. at least in its early stage concerning Flanders), there is no dedicated public funding scheme or large-scale public investments supporting manufacturing industries willing to participate in Made Different. However, companies are eligible for a series of public regional grants. The rest of the costs are to be covered by companies themselves.

Regarding the content of the initiative, a great emphasis is put on technology. Indeed, it mainly aims at transforming companies by increasing the digitisation of their production and operational processes, by integrating cyber-physical systems and by uptaking state-of-the-art manufacturing devices. However, one of the key transformation targets needed to be considered as a Factory of the Future also focuses on the need to train and adapt the workforce to new emerging roles and positions.

"Innovation is key: we have to be a frontrunner in new production technologies."–

Geert Bourgeois, Minister-President of Flanders.

Made Different follows a bottom-up approach as participating companies voluntarily decide to assess their performance and to implement the proposed transformation plan.

Such plan is in particular tailored to meet outlined specific transformation needs. A proactive involvement of the company's top management is a key condition to the successful transformation of its production processes.

A mixed funding approach

As the initiative is mainly industry-driven, no dedicated public funding scheme has been set up.

Indeed, interested companies need to carry the cost for their participation. However, they are eligible to several public grants- not specifically tailored to Made Different participants- which can cover up to 75% of their participation costs.

In Flanders, the regional government provided public support in the form of grants during the initiation phase of the programme (i.e. from 2013 to 2015). However, in 2015, considering that the programme was efficiently managed, the government decided to put an end to such public support.

In Wallonia, the government committed to incentivise manufacturing companies in undertaking the transformation of their production processes, through the establishment of several public subsidies. Although this support is not dedicated to Made Different, participating companies are eligible to several of these grants (such as *aides à la transformation numérique, à l'excellence opérationnelle* etc.). For instance, the 'chèques technologiques' scheme (i.e. technological vouchers), set-up in 2008, aims to cover the costs of the evaluation of SMEs' innovation capacity by qualified third-parties. Each voucher is worth 500 Euros, and a SME can benefit from up to 40 vouchers every year (Ref).

Private financing

Manufacturing companies willing to participate in Made Different, and to engage in transforming their production processes, need to cover the costs of coaching support provided by Sirris' and Agoria's experts. Such cost varies according to the size of the business and whether the company is a member of these organisations.

Supporting companies in their transformation

Made Different's main activities are mainly centred around three key steps: awareness-raising, coaching support as well as the evaluation of the progress made and the organisation of the Factory of the Future Awards.

During the first phase, Made Different puts a great emphasis on raising awareness towards businesses in order to foster the transformation and digitisation of the Belgian manufacturing sector. Made Different's awareness-raising activities mainly comprise the organisation of roadshows across the country during which success stories are presented and companies can interact with Made Different coordinators and FoF representatives.

Also, Made Different provides a freely accessible preliminary evaluation of interested businesses through a user-friendly on-line assessment tool (i.e. 'Scan Factory of the Future'). After completing the online questionnaire, companies receive a preliminary evaluation from Made Different experts assessing the type and extent of transformations needed as well as a benchmarking of their performance. Participating companies are also granted a free half-day visit of their premises by an expert to present the results of the preliminary assessment.

During the second step of the initiative, Made Different experts provide guidance to companies demonstrating the ambition to enhance their production processes. They altogether fully design and implement a transformation plan. The implementation phase usually lasts around two years during which experts provide continuous support. In the meantime, Made Different partners (e.g. industry associations, clusters or research centres) regularly organise events open to participating businesses such as workshops, company visits, showcases etc.

Target audience – Manufacturing Industries

The Made Different initiative targets manufacturing businesses from all economic sectors. However, in order to participate, companies must have a production system with a minimum of complexity and top management teams must demonstrate their ambition and willingness to transform their company.

Although company size is not a condition to participate, Made Different coordinators put a particular emphasis on attracting manufacturing SMEs. Indeed, SMEs represent 98% of all companies in Belgium and manufacturing SMEs may usually face greater difficulties than large companies in deeply transforming and digitising their production processes.

Concepts and focus areas – “Factory of the Future”

Made Different supports and steers businesses during their transformation into Factories of the Future (FoF). The concept is thoroughly defined and rests on seven key transformations covering technological, production, sustainability as well as human aspects.

All these pillars go hand in hand and companies need to adopt an all-encompassing transformation strategy in order to successfully qualify as FoF. These key pillars are the following ones:

- **World-class manufacturing technologies:** Companies should be able to deploy state-of-the-art production devices to reach a manufacturing process with high-quality standards.
- **End-to-end engineering:** this transformation aims to optimise value throughout the entire value chain by implementing an integrated design approach regarding processes such as sales, production, use of virtual models and simulations.
- **Digital factory:** manufacturing companies should digitise operational processes, enabling a better anticipation of the impact of any possible changes or decisions.
- **Human-centred production:** Employees should play a proactive role in the development of the company, and their skills should be adapted to the emergence of new positions and roles (e.g. with tailored trainings).

- **Production Network:** companies need to develop flexible collaborative relationships with an optimal eco-system of suppliers and partners in order to share risks and capital over the network.
- **Eco-production:** This transformation aims to achieve a production system within which each phase of a product’s life cycle (i.e. from acquiring materials, production and usage, to waste disposal) abides by high-level sustainability standards.
- **Smart production systems:** In order to make their production systems more flexible, self-learning and adaptive, manufacturing companies should achieve the interconnection of the various production components and devices, notably with the integration of cyber-physical systems.

SWOT Matrix for Made Different

<p style="text-align: center;">Strengths</p> <ul style="list-style-type: none"> • Tailored to the needs of companies thanks to its industry-driven and bottom-up approach. • FoF Awards are highly beneficial in enhancing companies’ attractiveness. 	<p style="text-align: center;">Weaknesses</p> <ul style="list-style-type: none"> • Limited public funding dedicated to SMEs can represent a relative barrier to business participation
<p style="text-align: center;">Opportunities</p> <ul style="list-style-type: none"> • Further exchanges and collaboration with other EU Member States having set-up similar initiatives. 	<p style="text-align: center;">Threats</p> <ul style="list-style-type: none"> • Uneven deployment at the regional-level in the long-run • Decreasing mobilisation from the business sector.

Source: Digital Transformation Monitor

Stimulating Company participation

The implementation of Made Different has been facilitated by two key drivers.

Firstly, the Factory of the Future Awards has proven to be a key tool in incentivising companies to participate. Indeed, manufacturing companies are in demand of marketing tools that demonstrate the great efforts undertaken to modernise their production processes and to develop state-of-the-art manufacturing factories.

Secondly, the business community has demonstrated a good level of participation and mobilisation. Indeed, Sirris and Agoria can count on diverse direct and indirect private partners to disseminate information as well as to provide feedback from specific economic sectors. For instance, around 20 partners are involved in the implementation of Made Different in Wallonia (i.e. research centres, competitive clusters, industry federation etc.).

Two-fold implementation approach

In terms of policy design and implementation, approaches followed by Wallonia and Flanders slightly differ.

In Flanders, Made Different can be mainly considered as a business-led initiative where private actors play a key coordination role. It also displays a low level of institutionalisation and a flexible structure in order to better address and adapt to the needs of the manufacturing industry. The regional government played a coordinating and supporting role alongside with Sirris and Agoria during the first two years of the initiative but withdrew in 2015 considering that it reached a good level of maturity.

The initiative is mainly coordinated by Sirris and Agoria which rely on their in-house experts to provide guidance and to assess the transformation efforts carried out by manufacturing companies. They also both organise the Factory of the Future Awards. Regular meetings are set-up with industry federations and associations in order to get feedback from their respective sectors and to ensure the effective coordination and implementation of the initiative.

However, it is important to note that Made Different is not a fully industry-driven initiative as public authorities also play a pivotal role in its implementation. Their involvement seems to actually vary according to the level of maturity of the initiative.

In Wallonia, Made different takes the form of a public-private partnership in which the regional digital agency (*Agence du Numérique-Digital Wallona*) is particularly involved. Alongside with Sirris and Agoria, the agency played a key role in designing and launching the initiative at the regional level and now acts as key coordinator, notably by centralising and disseminating information as well as by organising awareness-raising events (e.g. roadshows across Wallonia).

Public-private coordination

The implementation of Made Different mainly followed a three-step approach.

Originally, Sirris and Agoria, jointly approached the Flemish government with a view to initiate the Made Different project in 2011. Discussions on the design and fine-tuning of the instrument lasted for two years before the launch of the programme in 2013.

Between 2013 and 2015, the regional government played an active role in coordinating the initiative and fostering awareness-raising alongside with Sirris and Agoria. Considering that the programme should be mainly industry-driven, and taking stock of first positive results, the government decided to put an end to its direct participation in 2015. Since then, in Flanders, the programme is mainly managed by Sirris and Agoria.

Targeted and/or achieved results for Made Different

Awareness-raising	<ul style="list-style-type: none"> • Good turnout at roadshows and conferences regularly organised across the country.
Supported manufacturing companies	<ul style="list-style-type: none"> • 265 companies have achieved at least one of the seven key transformation dimensions • 65% of them are SMEs.
Factories of the Future	<ul style="list-style-type: none"> • 16 manufacturing companies have received the Factory of the Future Awards • 14 are from Flanders and 2 from Wallonia.
2020 Objectives	<ul style="list-style-type: none"> • 500 companies engaged in the transformation process • 50 Factories of the Future in Belgium

Source: Digital Transformation Monitor

Finally, the Walloon government launched its Digital Plan in 2015 (*Plan du Numérique*) with the view to, inter alia, establishing a similar initiative in the francophone region. Made Different-Digital Wallonia was officially launched in January 2017. The first phase of the programme (i.e. awareness-raising activities) is being currently implemented, with for instance a series of seven roadshows organised across Wallonia in February 2017; while the second phase of the programme (i.e. coaching support and design of the transformation plan) is yet to begin.

Limited support to SMEs

Stakeholders reported two main barriers to the implementation of Made Different.

Firstly, it was reported that a greater or more comprehensive financial support dedicated to manufacturing SMEs would ensure the further scale-up of the initiative and the transformation of their production processes. Indeed, despite their eligibility to public subsidies, companies have to cover themselves a high share of participation costs, which can represent a barrier to entry for smaller businesses.

Secondly, the recent replication and implementation of Made Different in Wallonia has led to a significant increase of the demand for Sirris' and Agoria's coaching services, relatively straining their human resources. In order to better address Walloon companies' needs, dedicated experts will be exclusively based in Wallonia.

Encouraging preliminary results

Considering the first results achieved, Made Different can be considered as a successful initiative.

In terms of awareness-raising, the roadshows organised across the country to incentivise manufacturing companies in joining Made Different showed a good turnout and demonstrated companies' strong interest in the initiative.

Around 265 Belgian manufacturing companies are actively participating and have at least implemented or started to implement one of the seven key transformations (REF). 65% of such companies are SMEs.

In total, 16 manufacturing companies, from diverse economic sectors (automotive, textile, food etc.) have hitherto received the Factory of the Future Awards since programme inception in 2013. Winning companies in general report that profound changes in their production processes led to a significant decrease in production costs as well as new job creation. Also, the FoF label proved highly beneficial in building new business partnerships and in attracting skilled workforce.

Made Different's objectives for 2020 are the following ones: 500 companies involved in the programme and committed to transform in at least one of the seven transformation dimensions; as well as 50 manufacturing companies recognised as Factories of the Future.

A flexible structure facilitating replication

The light and flexible structure of the Made Different initiative facilitates its replication in other EU regions or Member States. Informal Dialogue and exchanges with stakeholders from other EU Member States and involved in similar schemes have been recently initiated (i.e. in particular with the Netherlands).

However, considering the bottom-up approach followed by the initiative, industry associations and/or research centres should be willing to partake a proactive role in designing and implementing such programme. Similarly, companies must demonstrate already a certain interest and ambition in modernising their production processes.

Awareness-raising and support to SMEs are key

Four main policy lessons can be drawn from the implementation of Made Different in Flanders and Wallonia.

Firstly, awareness-raising activities prove to play a key role. Indeed, in many cases, companies lack information regarding the potential benefits of undertaking the digitization and modernisation of their production and operational processes. In particular, feedback from existing FoF play a determining role.

Secondly, in a similar vein, the involvement of a whole network of private actors (such as industry associations, competitive clusters, research centres etc.) ensures the dissemination of information to manufacturing companies from a wide diversity of sectors.

Thirdly, one of the key condition of a successful transformation into a FoF lies in the strong ambition and interest of companies' top management. This is all the more considering that such efforts are required in the long-run.

Finally, financial support towards SMEs is crucial to incentivise their transformation. In many cases, access to coaching support and guidance from experts would not have been accessible for many participating companies without public subsidies.

References

- ¹ Ministry of Economy (2010) *Etats généraux de l'industrie, rapport final*
- ² Belgian administration is strongly regionalised, and innovation policy falls under the full authority of the Regions (Flanders, Wallonia and Brussels capital).
- ³ Pierre Bitard & Thomas Zacharewicz (2015) *RIO Country Report 2015: France*; EUR 27949 EN; doi:10.2791/20335
- ⁴ IdFA (2015) *Alliance Industry of the Future - Rallying, Accelerating, Transforming*
- ⁵ <http://www.infos-entreprises.be/fr/cheques-techno>

About the Digital Transformation Monitor

The Digital Transformation Monitor aims to foster the knowledge base on the state of play and evolution of digital transformation in Europe. The site provides a monitoring mechanism to examine key trends in digital transformation. It offers a unique insight into statistics and initiatives to support digital transformation, as well as reports on key industrial and technological opportunities, challenges and policy initiatives related to digital transformation.

Web page: <https://ec.europa.eu/growth/tools-databases/dem/>

This report was prepared for the European Commission, Directorate-General Internal Market, Industry, Entrepreneurship and SMEs; Directorate F: Innovation and Advanced Manufacturing; Unit F/3 KETs, Digital Manufacturing and Interoperability by the consortium composed of PwC, CARSA, IDATE and ESN, under the contract Digital Entrepreneurship Monitor (EASME/COSME/2014/004)

Authors: Demetrius Klitou, Johannes Conrads & Morten Rasmussen, CARSA and Laurent Probst & Bertrand Pedersen, PwC

DISCLAIMER – The information and views set out in this publication are those of the author(s) and should not be considered as the official opinions or statements of the European Commission. The Commission does not guarantee the accuracy of the data included in this publication. Neither the Commission nor any person acting on the Commission's behalf may be held responsible for the use which might be made of the information contained in this publication. © 2017 – European Union. All rights reserved.