

WOMEN IN DIGITAL
NATIONAL
AND
INTERSECTORAL
STRATEGY
2021-2026

I. INTRODUCTION

Today's society is facing numerous fast technological developments that create new needs on the job market. In addition, there is a growing need to develop the necessary skills in order to face the social, health-related and environmental challenges of the 21st century. The skills necessary to find a job have changed during the last twenty years and will continue to do so at an increasingly quicker pace. Employees have to be able to adapt, to broaden and develop their skills as technologies evolve in order to take on the jobs of tomorrow. Basic digital skills, as well as advanced digital skills, are crucial for the future prosperity and well-being of our country.

Buying a train ticket, enrolling your children in school, applying for a job, making an appointment for a doctor's visit or at city hall, having certain bank or insurance services at your disposal, having your groceries delivered to your home... There are numerous examples of digitalisation in our economy.

Similarly, influential and well-considered digitalisation is part of the efforts made to face certain social challenges¹.

At European level, the reference to the 'ICT sector'² involves jobs that relate to information and telecommunication³, while the reference to the 'STEM sector'⁴ involves graduates in science, technology, engineering and mathematics (STEM)⁵. The term 'digital' refers to the transition of information in a digital form (this means: to be communicated via electronic devices or channels). Since information is ubiquitous in our economy, digital skills are needed in all economic sectors.

Developing and mastering digital skills is crucial for everyone in an increasingly digitalised world. These skills have to fulfil the needs of all women, regardless of their course of life.

Although the economy is quickly becoming digital, the development of *basic digital skills* is trailing: a large part of the population has no knowledge or insufficient knowledge about essential technological tools. An ICT survey of households and individuals (2019) conducted by the FPS Economy - Directorate-General for Statistics - Statistics Belgium shows that the digital gap affects 6.9% of people between 16 and 74 years old. However, there are huge differences within this age bracket, based on the population categories. The inclusion gap concerns various excluding factors during the course of someone's life (age, gender, origin, level of education, level of income, disabilities etc.). It is important to tackle all of these in order to close the gap as much as possible, since it became very apparent during the recent health crisis. This will allow everyone to fully benefit from the digital transition.

In addition to 'classic' digital skills⁶, certain skills are traditionally associated with the ICT and STEM sector, such as the ability to generate, understand and analyse data. However, these

¹ For example digital apps that are used to ease traffic congestion and the corresponding pollution, apps that monitor biodiversity, or apps that are intended to combat social prejudices.

² ICT: [Eurostat](#) "Information and communication technology, abbreviated as ICT, covers all technical means used to handle information and aid communication. This includes both computer and network hardware, as well as their software".

³ DESI: "Including jobs like ICT service managers, ICT professionals, ICT technicians and ICT installers and servicers Based on the new ISCO08 classification"; Eurostat - Labour force survey

⁴ DESI "People with a degree in a science, technology, maths or engineering related subject All People 20 to 29 years old Graduates in STEM per 1000 people" ; https://ec.europa.eu/eurostat/web/products-datasets/product?code=educ_uoe_grad04 ; Eurostat (table educ_uoe_grad04, using selection ISCED11=ED5-8)

⁵ It should be noted that a civil engineer in computer sciences who is working in the ICT sector, is considered a STEM graduate and ICT expert.

⁶ https://skillspanorama.cedefop.europa.eu/sites/default/files/EUSP_AH_STEM_0.pdf

skills are just as essential in a large range of jobs, regardless of the sector. As such, it is important for everyone to master these skills.

Furthermore, digital skills require the engagement of other interdisciplinary skills (soft skills) such as a problem-solving mindset, taking initiatives and having a critical mind in the context of a creative process. These multidisciplinary digital skills fulfil fundamental needs, not only professionally but also for the individuals themselves: these forms of knowledge contribute to a better understanding of the world and a stronger commitment to important social issues in an increasingly digital world (for example climate change, a fair transition in energy use, food supply, transport or healthcare).

Moreover, international studies have demonstrated that a creative and problem-solving approach of these matters allows young people to better understand digital skills and master them more easily. This point of view is often illustrated by the acronyms ICT/'STEAM', in the sense that the 'Arts' refers to the inclusion of artistic and creative aspects actually necessary for ICT and STEM on a daily basis.

Furthermore, there is a structural and growing shortage of *advanced digital skills* at a global, European and national level.

The DESI profile⁷ drawn up for Belgium states: *"There is a need to motivate more young Belgians to start a career in digital technology and, more generally, to interest more pupils in studying science, technology or mathematics (STEM) subjects. Moreover, investing into the re-skilling of the labour force and reducing the IT gender gap would help Belgium to tap the full potential of the digital economy"*.⁸

In Belgium, [Agoria](#) pointed out that an unaltered policy will result in 584,000 unfilled job openings by 2030, which represents an added value of 60 billion euros. In addition, 310,000 workers have to be reskilled by 2030 in order to prevent job losses worth 35 billion euros. This means that almost 95 billion euros (or 16.5% of the Belgian GDP) could be lost between now and 2030.

Only a small number of women is active in the digital domain in the European Union and in Belgium. This is also confirmed by the study ["Women in the Digital Age"](#) (2018) conducted by the European Commission: women represent 52% of the European population but only do 15% of ICT jobs. Women in Belgium only represent 18.2% of the ICT experts and only 7.9 individuals out of 1,000 (aged between 20 and 29)⁹ are STEM graduates.

The underrepresentation of women in sectors that are already facing a serious shortage creates, among others, a real economic problem.

In order to build a strong digital economy we need to take into account the issue of cross-discrimination, meaning women are discriminated against based on multiple factors (age, origin, level of income, level of education, disability etc.). Furthermore, more attention should be paid to certain vulnerable groups¹⁰, in particular single-parent families (generally represented by women) in order to understand how we can strive for real equality. Moreover, the digital world should reflect the reality of the society it represents in order to prevent (often unconscious)

⁷ DESI: Digital Economy and Society Index, an index calculated at European level

⁸ <https://ec.europa.eu/digital-single-market/en/scoreboard/belgium>

⁹ DESI, [Women Scoreboard 2019](#). This gender inequality varies according to the specific STEM field. More women are active in medicine and pharmaceuticals than in astrophysics or civil engineering, for example.

¹⁰ The following people are particularly considered as specific target groups: single mothers, marginalised women, women in precarious situations, women between 55 and 74 years old, disabled women;...

prejudices. There are real-life examples of this phenomenon, in particular in the field of AI¹¹... ICT and STEM experts should therefore promote an inclusive work environment since a lack of gender awareness in jobs like writing algorithms, for example, can feed cognitive prejudice in program design, but also in data analysis and the interpretation of the results, which defines the policies of tomorrow. In short, we need to promote greater diversity in order to truly reflect our societies.

As a true driving force behind emancipation, ICT and STEM offer new possibilities for girls and women to take action and tackle the environmental, political and economic challenges the country faces. ICT and STEM can be a tool for women to find their voice and to encourage their participation in democratic processes.

The European Union conducts an annual evaluation of the its member states' performance in "Women in Digital". The corresponding indicator can be found in DESI¹². Belgium signed the declaration "[Commitment on women in Digital](#)" on 9 April 2019. This declaration underlines the importance of promoting female participation at all levels of the digital economy and includes a commitment to define a purposeful national and intersectoral strategy concerning Women in Digital. The current strategy is aimed at developing the digital skills of all women and at making the digital sector (ICT and STEM) more attractive for women, also in the term.

The reasons behind inequality in the digital economy are complex and often related to culture¹³. This explains why it is not possible to immediately change such perceptions in a straightforward fashion. All sectors - governments, education networks, the private sector, civil society, media, academic sector - need to adopt a long-term strategy in overcome to remove cultural and systemic barriers and to encourage girls and women to participate in the digital economy. This strategy can only be successful if we have a better understanding of what causes inequality.

Therefore, it is crucial to fully determine the various parameters which influence girls and women in their choice of education and careers ("*challenge*"). This will allow us to define the levers necessary for the "*involved players*" to change these parameters ("*levers*"), respecting the division of competences.

All competent policy levels and involved players have drawn up a **five-year plan** for women in digital, coordinated by the FPS Economy.

This intersectoral "Women in Digital" plan establishes Belgium's commitment to this matter, respecting the division of competences.

The five-year plan includes a common and intersectoral strategy based on **five strategic objectives** in order to combat current prejudices and to tackle structural obstacles which prevent women from participating in the digital economy.

By adopting this strategy, every policy level and every organisation is committed to:

- 1) identifying, researching and monitoring parameters that specifically influence girls and women in their choice of education and careers;

¹¹ <https://www.theguardian.com/technology/2019/apr/16/artificial-intelligence-lack-diversity-new-york-university-study> ; <https://www.reuters.com/article/us-amazon-com-jobs-automation-insight/amazon-scraps-secret-ai-recruiting-tool-that-showed-bias-against-women-idUSKCN1MK08G> ; <https://www.washingtonpost.com/business/2019/11/11/apple-card-algorithm-sparks-gender-bias-allegations-against-goldman-sachs/>

¹² The Women in Digital Scoreboard is integrated in the Digital Economy and Society Index (DESI) since 2020.

¹³ The study Women in the Digital Age (COM, 2018) takes a closer look at the various factors that can lead to European women losing interest in ICT and STEM sectors.

- 2) promoting women's position in the digital economy and basing their support on the five determined strategic objectives;
- 3) defining objectives (whether internal or not) in order to continuously reduce current inequality;
- 4) measuring the progress made regarding the determined strategic objectives and annually report about the progress made, for more transparency and accountability (DESI);
- 5) promoting an inclusive policy that defines objectives at all levels of the organisation ("Gender Pay Equality Policy", communication etc.), taking into account the specific principles of the policy level or organisation;
- 6) ensuring that the commitment is made and maintained within their administration or organisation, also at the highest executive level;
- 7) focusing in particular on women in vulnerable groups or women that could be the target of cross-discrimination (meaning discrimination on the basis of multiple factors);
- 8) organising a conference at least twice every six months in order to share information and, if possible, reveal relevant statistics, respecting the competences of every policy level and represented organisation.

The current strategy offers a reference framework to the involved participants (basic minimum).

It is up to every policy level and every organisation to evaluate how they can achieve the defined strategic objectives, depending on their competences and budgets.

Monitoring progress will not only be done quantitatively but also qualitatively, within the context of an intersectoral work group that unites various policy levels, the private sector, the academic sector, and the non-profit sector. The aim is to meet the requirements of the "Commitment on Women in Digital" declaration and to provide DESI with coherent indicators.

II. FIVE STRATEGIC OBJECTIVES

STRATEGIC OBJECTIVE 1: Ensuring more women graduate in the digital sector

1.1: Encouraging interest in digital from a young age (<6 years)

Challenge

Gender stereotypes are created at a very young age¹⁴. Young girls' games and activities, as well as their general upbringing, unconsciously affect their interests and their outlook. Technology and science (as well as jobs in these sectors) are often (un)consciously associated with manly characteristics by parents, educators and school staff. As a result, many young girls lose interest in these subjects and rule out a future career in technology or science, for various and unconscious reasons¹⁵.

¹⁴ The Role of Education and Skills in Bridging the Digital Gender Divide, Evidence from APEC Economies, OECD, 2019 ; Closing the STEM gap, Why STEM classes and careers still lack girls and what we can do about it, Microsoft, 2018 ; Unia, [inclusief onderwijs](#);

¹⁵ See in particular [Déchiffrer le code : l'éducation des filles et des femmes aux sciences, technologie, ingénierie et mathématiques \(STEM\)](#), UNESCO, 2017

Levers

Girls' interest in ICT and STEM should be encouraged in order to challenge stereotypes. In addition, it should be stressed that both men and women can consider a future career in the digital sector.

- By integrating gender issues in the basic and further training for professionals in childcare (creche, day-care centre) and for teachers who educate these young children¹⁶;
- By improving and promoting the creation and distribution of educational material that supports gender equality during the training of digital skills or during the presentation of jobs in the digital sector or jobs that are related to the digital economy. The development of this educational material requires a continuous exchange between the governments and networks responsible for education and the governments and bodies responsible for employment, in order for them to benefit from positive examples;
- By encouraging collaboration between the private sector and the childcare sector regarding gender-sensitive, educational, scientific and constructional games (inclusive¹⁷, gender-neutral), in particular by respecting the "*Charter for gender-neutral toys (including digital toys)*", which should be created in Belgium on the basis of the existing model in France;
- By providing parents and the childcare sector with better access to inclusive information,
 - a) for example regarding theme camps or local extracurricular activities where children learn general digital skills,
 - b) with ICT or STEM activities for young children that can be organised by parents themselves¹⁸.

Extra attention should be paid to underprivileged children or children with special needs regarding access¹⁹ or learning²⁰. These children are statistically less likely to have access to extracurricular activities.

- By favouring an approach where parents are considered partners. This means: creating a network of parents (mother and father,...) and female role models in order to make them aware of their influence on their children's education and career choices and make them more involved. In addition, children should be taught about the various jobs for experts in the digital sector, recognise them and be able to specify the social relevance of these jobs;
- By promoting a gender-sensitive, light-hearted and creative image of the digital sector in the media, aimed at this age group;

¹⁶ [Le ballon de Manon et la corde à sauter de Noé, Guide pour prévenir les discriminations et les violences de genre destiné au corps enseignant du primaire et aux professionnel.le.s de l'enfance](#), Bulle Nanjoud et Véronique Ducret, 2ème observatoire, Suisse.

¹⁷ The term "inclusive" is accurately defined in the Council Decision (EU) 2018/1215 of 16 July 2018 on guidelines for the employment policies of the Member States.

¹⁸ <https://gosciencegirls.com/>

¹⁹ Access to buildings for people with mobility impairment etc.

²⁰ Possibility to participate in activities because of special facilities for hearing-impaired people or people suffering from dyscalculia, dyslexia or dysorthography

Involved players

Governments; French Community (Fédération Wallonie-Bruxelles); Flemish Government; German-speaking Community (Ostbelgien); Brussels Capital Region; Walloon Region; communes; private sector; civil society; FPS Economy; media; education networks...

1.2: Fuelling children's curiosity for digital skills in primary school and helping them to master digital skills (between 6 and 12 years old)

Challenge

The digital sector is not considered a creative field with a positive influence on society. This image is one of the reasons why girls between 6 and 12 are not interested in this field. Moreover, social expectations are different for them²¹. The male image of future careers in the digital sector is even more reinforced at this age. In addition, these school subjects are often struggling with a lack of time, poor access to facilities (computers/tablets, screens, internet etc.), a shortage of technical support as well as teaching staff who are sufficiently trained to combat gender prejudices regarding these subjects and who can adopt sufficiently playful and creative teaching methods. Not enough children this age, particularly underprivileged girls, are participating in more advanced activities like coding or theme camps where they learn about security, rights and duties in the digital world.

Levers

Young girls should be supported when they are interested in and learning about general digital skills, respecting the freedom of education. This should be done by approaching the subjects in a playful, creative and gender-sensitive manner and highlighting the social impact of digital skills²².

The primary purpose is to enable everyone to master general digital skills as part of a cognitive approach to understand how digital skills are developed.

The second goal is to enable anyone who is interested to further develop their digital skills (basic skills as well as advanced skills).

- By integrating gender issues in the basic and further training for teachers who educate these children;
- By improving and promoting the creation and distribution of training material (for teachers) that highlights gender awareness in the digital field;
- By giving every educational institution and every teacher access to the necessary material, technical support and training (particularly in gender-sensitive communication), by introducing curricula or education material that promote a playful, creative and gender-sensitive approach of digital skills. Trainings with a "train the trainer" methodology should also take into account what specific teachers need in order to acquire the necessary digital skills;
- By stimulating girls to participate in theme camps or extracurricular activities where they learn basic or advanced digital skills, by distributing and collecting clear information for parents and primary schools about such local activities;

²¹ Microsoft: <https://www.microsoft.com/en-us/corporate-responsibility/skills-employability/girls-stem-computer-science>

²² <https://www.microsoft.com/en-us/corporate-responsibility/skills-employability/girls-stem-computer-science>

- By encouraging teachers to value women who played an important role in the IT development or women who made important scientific discoveries (primary role models), highlighting the impact they had on our society today. This will combat the *Matilda effect*²³;
- By promoting an approach that enables pupils to combine their interests with digital skills and digital aspects, for example by enabling the development of 'class projects' that fuel their curiosity, creativity, interest and autonomy ("*problem solver*" strategy);
- By creating a network of parents (father and mother) and female role models to make children aware of the role models' achievements in the digital field.
- By promoting gender-sensitive images about the digital sector in the media, aimed at this age group.

Involved players

Governments; French Community (Fédération Wallonie-Bruxelles); Flemish Government; Brussels Capital Region; German-speaking Community (Ostbelgien); communes; FPS Economy; education networks; private sector; ICT sector; civil society; media...

1.3: By turning digital skills into an everyday reality for adolescents (12 to 18 years)

Challenge

*Girls often do not consider the digital sector, which is largely dominated by men, an 'accessible' environment or an environment in which they can thrive. Young girls with a certain knowledge or interest in the digital field are often labelled "nerds" or "geeks"*²⁴. *However, experiences during adolescence have a huge influence on their future choice of studies. Basic skills needed for the digital jobs of the future are also developed during adolescence.*

Levers

The purpose is to prepare teenage girls so they can take on the challenges of an increasingly digitalised world.

- By creating a positive and inclusive image of studies and careers in the digital sector;
- By organising info sessions in schools about future jobs, highlighting the importance of digital skills in all jobs;
- By creating a positive image of digital skills and the impact they have on society, both in the private and in the public sector;
- By explaining basic computer science clearly and ensuring that everyone masters the (soft) skills needed for the digital jobs of tomorrow (critical mind, problem-solving mindset, creativity etc.);
- By integrating gender issues in the basic and further training for teachers who educate these children;
- By improving and promoting the creation and distribution of training material (for teachers) that highlights gender awareness in the digital sector;

²³ Meaning that contributions of female scientists in research are denied and instead attributed to their male colleagues. There are numerous examples: Nettie Stevens (XY chromosomes), Rosalind Franklin (DNA), Lise Meitner (nuclear fission), Jocelyn Bell-Burnell (pulsars), Marthe Gautier (trisomy 21), Marian Diamond (neuroplasticity), Hedy Lamarr (wifi technology),...

²⁴ Girls in IT: The Facts, published by NCWIT (Ashcraft et al., 2012) p. 28-29

- By stimulating the organisation of work placements or theme camps in the digital sector and by stimulating girls to participate, for example by distributing and collecting clear information for parents and primary schools about such local activities;
- By organising 'real contacts' with digital activities (such as coding sessions, workshops, school trips relating to digital skills or the digital sector etc.), by pointing out the potential of digital skills in our society and by linking digital skills to practical applications in daily life, regardless of sectors;
- By promoting gender-sensitive images about the digital sector in the media, aimed at this age group.

The various competent federated entities of Belgium are also committing to stimulate and spark young people's interest in degrees linked to the digital sector, within this framework.

Involved players

Governments; Flemish Government; French Community (Fédération Wallonie-Bruxelles); Brussels Capital Region; German-speaking Community (Ostbelgien); communes; SIEP; private sector; civil society; education networks; state-owned companies; media;...

1.4: Encouraging students to choose ICT and STEM degrees at universities and colleges (17 to 18 years)

Challenge

Only one in three STEM graduates and only one in six ICT graduates is a woman²⁵. This current situation should be changed by encouraging girls to choose a STEM or ICT degree at university or college when they graduate secondary school. Choosing a field of study at 17-18 years old is a crucial moment, but their choice is also influenced by experiences at a younger age (see before).

Levers

The purpose is to encourage students to choose ICT or STEM degrees when they are in the 5th and 6th year of their secondary education (17-18 years)²⁶:

- By improving access to information about ICT and STEM degrees at university or college, by making these degrees more attractive for young girls and by introducing these degrees in a way that highlights their impact on society;
- By gaining a better understanding of how young people, and in particular young women/girls, view the digital world, digital careers and profiles through specific research;
- By analysing the relevance of such degrees (impact on society);
- By promoting a gender-sensitive image of the digital sector in the media aimed at this age group;

²⁵ Declaration "Commitment on Women in Digital", 2019 ; Women in digital Leaflet, Commission 2019.

²⁶ <https://onderwijs.vlaanderen.be/nl/meisjes-kiezen-meer-dan-ooit-voor-techniek-en-wetenschappen>

- By creating a network of female digital ambassadors who can share their experiences²⁷ (online or during school visits) and/or support young women during their studies (mentoring);
- By highlighting the benefits of such degrees, for example the attractive salaries²⁸, more flexibility²⁹ (working from home, working hours, the need for teamwork in order to product high-quality results, often international atmosphere, etc.);
- By improving access to information about the various career possibilities in the digital sector and the corresponding benefits (job security, more opportunities, faster promotions etc.);
- By focusing on role models in these careers;
- By improving partnerships with the private sector: a positive experience in a digital environment encourages students to choose this type of career.

Involved players

Governments; French Community (Fédération Wallonie-Bruxelles); ARES; Flemish Government; Vlaamse Universiteiten en Hogescholen Raad (VLUHR); German-speaking Community (Ostbelgien); communes; Brussels Capital Region; SIEP; FPS Economy; sectors; civil society; education networks; Network of Digital Ambassadors; media;...

²⁷ Regarding empowerment and networking, see in particular H. Guétat-Bernard en N. Lapeyre, "Les pratiques contemporaines de l'empowerment. Pour une analyse des interactions entre pratiques et théories, individu-e-s et collectifs", Cahiers du Genre 2017/2 (n° 63), p. 5 to 22.

²⁸ Digital jobs are often better paid than others. Employees in these digital jobs often have a better working environment in general. Source: Women in the Digital Age (2018), p. 153.

²⁹ ICT experts often have more day-to-day flexibility and autonomy in their working hours than professionals in healthcare or other employees. Source: Women and men in ICT: a chance for better work-life balance, Research note European Institute for Gender Equality, 2018, p. 30.

STRATEGIC OBJECTIVE 2: Stimulating all women to participate in the digital labour market and/or digital sector

2.1: Better recruitment of women for the digital sector and for jobs requiring digital skills

Challenge

Few female ICT graduates actually start a job in the ICT sector³⁰. Furthermore, women who do work in the ICT sector are more likely to change careers than their male colleagues³¹.

In addition, women without ICT or STEM diplomas are less likely to see themselves working in an environment where general digital skills are required.

It is a well-known problem that women often feel like job adverts are not addressed to them (we can make a difference by adopting the writing style, among others), even though the reasons behind it are not always clear. Moreover, they are discouraged by the idea that they have to launch their career in a predominantly male environment, often characterised by unconscious gender stereotypes or inequality in their organisational culture.

Likewise, employers do not always consider writing job adverts in an inclusive way. Sometimes they are also not proactively working on making the work environment more inclusive.

Levers

The purpose is to promote the recruitment of women in the digital sector or for jobs requiring digital skills:

- By coaching women during their job search and job interviews, in particular showing them how to adapt the description of their past career to a specific profile, how to perform better during a job interview, and by giving them more accurate information about what specific digital profiles entail. Extra attention should be paid to more vulnerable groups or groups that are the target of cross-discrimination (meaning discrimination on the basis of multiple factors);
- By providing employers with information or advice about how they can take women into account in their external communication, when they publish job adverts and conduct job interviews, but also when they introduce a new colleague to their team³²;
- By recruiting women in relevant digital jobs when several candidates have identical competencies, in accordance with the relevant legislative provisions, in particular the Royal Decree of 11 February 2019 determining the conditions for positive actions;
- By organising inclusive job fairs aimed at women in the digital sector (for example "ICT Job Day for Girls and Women");
- By pursuing a transparent staffing policy, particularly regarding trainings (trajectory) and access to promotions;
- By reskilling women based on the labour market arrangements (see initiatives VDAB, Actiris, Bruxelles Formation, digitalcity.brussels etc.)

³⁰ Women in the Digital Age (2018), p. 3.

³¹ [UnitelT](#), e-inclusion Network ; [Girls in IT : the facts](#), National Center for Women & Information and Technology

³² McKinsey [Women in the workplace 2019](#); list of good practices by the Institute for the Equality of Women and Men; [Empowering career women for the digital future](#), JUMP.

Involved players

Governments; employment services; private sector; digital sector; recruitment agencies; trade associations; social partners and organisations representing employers/self-employed people/employees/...; civil society; media;...

2.2: Facilitating professional coaching/reskilling, taking into account the needs of an increasingly digital society

Challenge

In a continuously changing world, the purpose is to help people who are already part of the labour market to reskill themselves for the digital jobs of tomorrow, whether in the digital sector or in another sector that also requires general digital skills. This also goes for women. In reality, women could be face with specific barriers when they want to reskill themselves, master the necessary skills or follow training in a new field of expertise³³ (artificial intelligence, etc.). They need to be supported when trying to adapt to technological changes that impact the job market.

Levers

Lifelong learning should be stimulated as much as possible:

- By offering accessible³⁴ trainings that allow women to master basic or advanced digital skills, where necessary. When needed, such trainings can be organised “for women only”, at least during the first few contacts, in order to provide a familiar environment so they are able to continue their training in a mixed environment (men and women) during future contacts;
- By supporting their current female employees and encouraging them to increase their digital know-how, which will enhance their job prospects;
- By supporting work placements or trainings that allow women to gain their first experience in the digital sector;
- By promoting synergy projects with female students in various fields such as BeCode, Molengeek, HBO5, Ecole19, Interface3, TechnofuturTic, le Wagon,... in the form of a project, work placement or training;
- By supporting any sector initiatives for coaching;
- By paying extra attention to women who are on unemployment benefits or supplementary benefits, and girls/women in vulnerable groups in general³⁵ and by promoting partnerships with educational networks with direct access to these groups (ACTIRIS, Koning Boudewijnstichting,...) Women in vulnerable groups are less likely to have access to information, training and jobs in the digital sector, but when we involve and encourage them they are equally capable of mastering new digital skills and steering their career towards the digital sector;
- By pursuing a transparent staffing policy, particularly regarding trainings (trajectory) and access to promotions.

³³ JUMP, Empowering career women for the digital future, What do women need to thrive in the digital economy, 2020.

³⁴ This means: trainings suited for their specific situation, taking into account their current level of knowledge.

³⁵ <https://www.voka.be/activiteiten/dig-it-verlaagt-drempels-naar-werk-voor-vrouwen-met-een-migratieachtergrond>

Involved players

Governments; communes; private sector; civil society; employment services; recruitment agencies; education providers; employers;...

2.3: Promoting female entrepreneurship in the digital sector or in sectors that require digital skills

Challenge

664,512 of active SMEs in Belgium are managed by men, whereas only 229,830 are managed by women. That equals 65,9% and 22.8% of Belgian SME's³⁶. There are still too few women taking the leap and setting up digital start-ups or digital companies.

A predominantly male investment environment, gender prejudices during the presentation of investment plans, and a male image of entrepreneurship (particularly in the digital sector) can constitute major barriers.

Levers

The goal is to reduce the barriers, support female entrepreneurship in the digital sector and promote a more positive image of the digital sector.

- By raising awareness among women about innovation, and by providing them with the information and trainings they need in order to make their case with banks and institutions;
- By supporting them during the administrative procedures to apply for financial from a bank, by demystifying venture capital and investment funds, and by preparing them for a multi-channel fundraising campaign;
- By training people working in banks and institutions so they are aware of the numerous prejudices and the ways to combat them, in particular when handling cases in the digital sector;
- By providing women with an efficient network;
- By presenting successful female entrepreneurs as role models;
- By introducing institutions and women who want to set up their own business to companies that were founded by at least one woman (and the achievements they made).

Involved players

Governments, regional governments, trade associations, education providers, civil society;...

³⁶ 2019, STATBEL

STRATEGIC OBJECTIVE 3: Improved retaining of women in the digital sector

3.1: Promoting an inclusive working environment

Challenge

On average, women in the digital sector change sectors more often than their male colleagues³⁷. They leave these predominantly male sectors for various reasons,³⁸ like the perception that asking for a better work-life balance will not be well received, because they feel like they are (too) often facing harmful social prejudices, or because they feel like their career prospects³⁹ are not as good as those of their male counterparts. The harmful social prejudices women are faced with include the possibility⁴⁰ to have to deal with sexist behaviour in the workplace, such as maninterrupting⁴¹, mansplaining⁴², inappropriate remarks, certain forms of intimidation and even sexual intimidation or sexual violence. This behaviour can constitute a major barrier for gender equality at work.

Levers

The purpose is to promote an inclusive working environment,⁴³ especially when the teams are predominantly made up of men. This inclusive working environment implies commitment at the highest executive level (board of directors, for example):

- Ensuring the creation of a "Gender Pay Equality Policy" to combat the structural pay gap⁴⁴;
- By pursuing an inclusive communication policy, both internally and externally;
- By supporting women with high potential within companies or organisations and allowing them to broaden their skills based on the needs of their organisation, so they can boost their career development;
- By setting up coaching so women increase their *leadership capital* and confidence;
- By stepping up the fight against gender discrimination (both directly and indirectly) in every stage of the working relationship, in particular when there is a promotion opportunity or when an employee is pregnant⁴⁵;
- By committing to the establishment of objectives within the organisation for female representation at all levels, by recruiting in a gender-sensitive manner, by enabling women to gain the skills they lack during their career, and by enabling women to have access to management positions and key positions that relate to digital skills and/or the

³⁷ Men are less likely to leave highly technical jobs for a job in another trade than women (31% of men as opposed to 53% of women). Their reasons for leaving also differ. 67% of men leave their job for faster career development, a higher salary or to set up their own business, as opposed to 52% of women. Women's reasons for leaving are mostly personal: 21% left their job because of personal reasons like raising children or the relocation of their partner, as opposed to 12% of men. Source: Women in the Digital Age (2018),

³⁸ S. Hubbard-Bednasz et al, [Wanted: Women in STEM, An exploration of influential factors, their professional journey & ways to foster change](#), 2016, 451 Research.

³⁹ <https://eige.europa.eu/news/sexism-work-how-can-we-stop-it>

⁴⁰ <https://www.brusselstimes.com/news/belgium-all-news/72959/60-european-women-victims-of-workplace-sexism;>
<http://jump.eu.com/resources/sexism/>

⁴¹ Neologism used for the first time in the article "How not to be 'maninterrupted' in meetings" in 2015, written by Jessica Bennett, a columnist for The New York Times and Time Magazine. Used regularly since then.

⁴² Defined by the Oxford Dictionary as "the act of explaining something to someone in a way that suggests that they are stupid; used especially when a man explains something to a woman that she already understands".

⁴³ List of good practices by the Institute for the Equality of Women and Men; [How to build an inclusive workplace](#), Jump; <https://www.forbes.com/sites/ericmosley/2019/10/17/how-to-create-a-more-inclusive-workplace-culture/#57c610d567bd>; see objective 4 of the declaration <https://ec.europa.eu/digital-single-market/en/news/eu-countries-commit-boost-participation-women-digital>

⁴⁴ Even though Belgium is doing relatively well in this area (ranked third in the EU), the gender pay gap persists: <https://ec.europa.eu/digital-single-market/en/news/women-digital-scoreboard-2019-country-reports>

⁴⁵ A specific leaflet (in French) "Pregnant at work. A guide for women and employers" is available on the website of the Institute for the Equality of Women and Men.

digital sector (when several candidates have the same competencies), in accordance with the relevant legislative provisions and particularly the law of 10 May 2007 combating certain forms of discrimination, the law of 10 May 2007 combating gender discrimination, and the Royal Decree of 11 February 2019 determining the conditions for positive actions;

- By ensuring that we continue to battle sexism at work, and in particular by ensuring to provide a respectful and egalitarian work environment, making both employers and employees aware of this issue, especially by regularly launching awareness campaigns and by ensuring the integration of the available tools⁴⁶. This requires a greater awareness of legislative provisions such as the law of 22 May 2014 against sexism in public space. Furthermore, victims should always be able to report their experiences via the various channels and they should receive counselling when doing so, in particular considering the law of 4 August 1996 concerning the well-being of employees at work. In addition, a law ratifying the ILO Violence and Harassment Convention (no. 190) must be adopted as soon as possible.
- By supporting the assessment of the opportunity to create a “Women in Digital” label and/or any other sector label for companies that fulfil certain inclusive criteria in the digital sector or in sectors requiring digital skills. This is a label for inclusive companies who have committed themselves to pursue an active recruitment strategy aimed at women and who have taken internal measures regarding inclusion and internal career plans for their employees.

Involved players

Governments; trade associations; civil society, private sector, digital sector;...

3.2: Lifelong learning

Challenge

In an increasingly digital world, lifelong learning is crucial to provide companies with adequate work force, adapted to their needs. This requires a proactive revaluation of digital skills, even for women who might not be inclined to take the initiative to follow training to maintain their digital skills (reskilling) or increase their digital skills (upskilling). Employers will have to work out how to train or reskill their staff, not only when they recruit them, but during their entire career.

Levers

Encourage learning throughout the entire active career⁴⁷:

- By making communication and trainings about basic digital skills more inclusive and attractive for women, and by keeping these trainings up to date (reskilling);
- By promoting training about more advanced digital skills (upskilling) in order to meet the specific needs of companies (AI, blockchain, cybersecurity, cybercrime, 5G, special projects etc.) and by making these inclusive and attractive to women;
- By providing women with education programs that increase their confidence and leadership;

⁴⁶ <https://eige.europa.eu/publications/gender-sensitive-communication/practical-tools-checklists-and-summary-tables>

⁴⁷ [OECD Employment Outlook 2019: The Future of Work](#)

- By suggesting awareness campaigns about gender discrimination (directly or indirectly) when the (best) 'digital profiles' are presented, so recruiters are aware of their potential prejudices;
- By training female employees, male employees, and employers in this sector.

Involved players

Governments; private sector; digital sector; civil society; employment services; education providers; employers;...

3.3: Achieving a good work-life balance and reducing the pay gap

Challenge

Women's professional development is hindered by many hurdles, especially by the struggle to achieve a good work-life balance. This leads to the establishment of a so-called 'glass ceiling'. In addition, a number of specific elements prohibit women from securing high-level positions in the technological sector or being offered a promotion⁴⁸. Furthermore, women in the Belgian ICT sector earn 12% less than their male colleagues with the same skills⁴⁹ and are less likely to be offered a promotion⁵⁰.

Levers

In an increasingly digital world, being physically present is not as essential as it used to be. Depending on the needs and possibilities within an organisation, it is advisable to promote a better work-life balance and to adopt a cycle that enables lifelong learning (see 3.2) (*Work - Life - Learn*).

The purpose is also to break the glass ceiling and close the gender pay gap:

- By pursuing a transparent HR policy that identifies elements that promote the balance "*Work - Life - Learn*";
- By adopting a "Gender Pay Equity Policy" and making that information public;
- By ensuring stronger female representation in management and key positions in the digital sector or positions that relate to digital skills;
- By supporting initiatives such as "*Parents@Work*" and any other initiative that is aimed at a fair distribution of professional and parental duties;
- By providing an inclusive work environment⁵¹ and by communicating about benefits such as health insurance, flexible working hours, working from home, an inclusive training scheme, reasonable facilities and/or benefits regarding childcare;
- By studying the legal provisions and, if possible, adapting them to achieve a fairer social model for men and women, especially concerning household duties. It concerns in particular the possibility for employees to combine their career with their private life

⁴⁸ For example, women are more likely than men to start their career in an entry-level job (55% as opposed to 39%). There is a lack of transparency (only 42% of women in highly-technical profiles clearly understand how they would be assessed if they chose to apply for a higher position, as opposed to 55% in other departments), as well as a lack of critical women in executive positions in the sector. Source: Women in the Digital Age (2018), p. 100.

⁴⁹ Women in Digital Scoreboard, 2019

⁵⁰ McKinsey [Women in the workplace 2019](#)

⁵¹ How to build an inclusive workplace, Jump ; <https://www.forbes.com/sites/ericmosley/2019/10/17/how-to-create-a-more-inclusive-workplace-culture/#57c610d567bd>

- more easily, by revaluing birth leave and the way in which both parents can be given the same benefits from the moment their child is born;
- By valuing and encouraging companies that take action concerning these aspects.

Involved players

Governments; private sector; digital sector;...

3.4: Being inspired by other women's success in this field and being part of a peer community

Challenge

Women in the technology sector often feel like they have to fight twice as hard as their male colleagues to prove themselves, as they are still underrepresented in the digital sector. They also often feel like there is no place for them to voice their concerns and needs⁵². Women who have female role models, who have a mentor or who are part of a community of equals are more likely to commit to a career in the digital sector.

Levers

The purpose is to value women in the digital sector and give them a safe space to exchange ideas and experiences.

- By promoting mentoring and stimulating digital female ambassadors (role models⁵³) to share the keys to their success with young women who just graduated;
- By setting up one of several "Women in Digital" groups (possibly (inter)sectoral, involving banks, telecommunication, IT/cybersecurity, biology etc.) in order to support women in their daily work and to provide them with a safe space to exchange ideas, as well as increase their skills and broaden their network.

Involved players

Governments; private sector; civil society; digital sector; social partners;...

⁵² [Girls in IT: the facts](#), National Center for Women & Information and Technology

⁵³ Closing the STEM gap, Why STEM classes and careers still lack girls and what we can do about it, Microsoft, 2018

STRATEGIC OBJECTIVE 4: Creating new images

4.1: Promoting the presence of women in digital technology, both on and off screen

Challenge

Still too often, events and broadcasts of debates related to the digital sector or linked to digital skills do not include any female participants. Frequently, there is also a lack of gender equality in the composition of national and European administrations, bodies, councils and commissions dealing with those issues⁵⁴. This underrepresentation of women reinforces existing stereotypes, which threatens the subsequent encouragement of women's participation in the digital domain.

Levers

- By supporting the 'No Women no Panel' campaign so that every digital event or broadcast has a mixed panel (including women);
- By ensuring that women are better represented in administrations, governments, parliaments and decision-making bodies of organisations when it comes to digital issues;
- By teaching responsible innovation from a gender-sensitive perspective, for example by basing lessons on the European Framework of Responsible Research and Innovation (RRI)⁵⁵. The aim is to promote inclusive and participatory methodologies in all process stages and at all levels of research and innovation (from program creation to design, implementation and assessment) in matters related to the digital sector or digital skills;
- By engaging in a sustainable and constructive dialogue with the media, including regional media, in order to combat certain views in our society.
The 'Matilda effect'⁵⁶ in particular needs to be countered by focusing on women who are at the forefront in IT or who made important scientific discoveries. It is also about presenting female entrepreneurs who do not necessarily have a university STEM degree or a traditional background in IT but who nevertheless have a successful career in a digitally field.
- By promoting the media's access to information sources that are also female, by creating a list of experts for the media (for example the "[expertalia](#)" type).
- By raising awareness among communication agencies about the various professions in the digital sector and about gender bias and the lack of inclusion in images associated with the digital sector.
- By initiating a dialogue with public television channels to ensure a change in the image of girls and women in relation to the digital sector and digital skills.

Involved players

Governments; public services; private sector; digital sector; civil society; media;...

⁵⁴ See objective 5 of the Declaration: <https://ec.europa.eu/digital-single-market/en/news/eu-countries-commit-boost-participation-women-digital>

⁵⁵ B. C. Stahl 1 et al., The Responsible Research and Innovation (RRI) Maturity Model: Linking Theory and Practice, Sustainability 2017, 9, 1036

⁵⁶ Meaning that contributions of female scientists in research are denied and instead attributed to their male colleagues. There are numerous examples: Nettie Stevens (XY chromosomes), Rosalind Franklin (DNA), Lise Meitner (nuclear fission), Jocelyn Bell-Burnell (pulsars), Marthe Gautier (trisomy 21), Marian Diamond (neuroplasticity), Hedy Lamarr (wifi technology),...

4.2: Raising awareness: organising specific events and communication campaigns

Challenge

Girls and women are often still unaware of role models in the digital sector or sectors that require digital skills. They are unsure of what a career in these sectors would actually entail. The presence of women in digital companies is still too unknown. The same is true for the support opportunities for women who want to build a career in this sector. In addition, there is insufficient emphasis on the link between studies in these fields and an attractive career that allows people to have a positive impact on our society and on the current social and family challenges.

Levers

Organising and/or supporting events and awareness campaigns:

- By publicising role models in the digital sector, by offering girls and women practical experience in the world of IT, providing them with information and encouraging them to choose an education or a job in these sectors;
- By organising a specific and inclusive Job Day, "Girls & Women in Digital";
- By promoting access to information about the structures set up to support women in the digital field (networks,...), as well as promoting inclusive training in the digital sector (ICT/STEM) for women;
- By encouraging men - the vast majority of employees in the digital sector - to become aware of the importance of improved gender equality in the representation within the corporate sector and at all levels of power⁵⁷;
- By showing companies examples of success stories in implementing a non-discriminatory company culture, inclusive work environments and gender pay equality policies;
- By promoting success stories of women in the digital sector and in inclusive digital organisations⁵⁸.
- By supporting awareness campaigns targeting young people under 20 who will soon be choosing their secondary or higher education, and by developing strategies to reach these young people through channels they often use (social media), people they admire (influencers, well-known artists, etc.), as well as by improving the visibility of successful women in the digital sector or sectors requiring digital skills, while highlighting inclusion and the diversity of women as a factor that increases the likelihood of success.

Involved players

All

⁵⁷ For example <http://jump.eu.com/resources/sexism/>

⁵⁸ Girls & Women in Digital Day, Women Code Festival, awards for successful women in ICT and inclusive ICT/STEM companies

4.3 Cooperating with the private sector

Challenge

Many companies (telecom, banks etc...) decided to promote women's employment in the digital sector. The key is to establish and maintain a sustainable dialogue with the private sector in order to stimulate diversity in the digital sector and foster a more inclusive environment.

Levers

- By valuing organisations that support an inclusive approach in jobs relating to the digital sector or strengthening digital skills;
- By setting up and/or supporting awareness campaigns linked to the objectives of the current strategy;
- By supporting and valuing sector initiatives and strategies that respect certain inclusive criteria in the digital sector or sectors requiring digital skills, including through the exchange of best practices.

Involved players

Governments; public-private partnerships; professional federations; private sector; media;...

STRATEGIC OBJECTIVE 5: Closing the gender gap among specific target groups

5.1: Vulnerable groups

Challenge

There are also significant differences between men and women when it comes to digital skills⁵⁹ (basic skills, more advanced skills and basic software skills) and access to internet as well as digital applications⁶⁰. These differences have been reported as accurately as possible in the annual Information Society Barometer since 2016. In general, women have a lower level of skills and a higher risk of being digitally excluded⁶¹. Some groups, such as single mothers or women aged 55 to 74, are particularly vulnerable. Minimum access to digital applications and minimum skills are however increasingly essential to fully participate in the current digital society. It includes, for example, activities related to citizenship (eGov, etc.), access to information (internet), basic tasks such as online purchases, banking services, online contacts with school, etc. Digital exclusion threatens to, indeed, lead to new mechanisms of social exclusion or to reinforce existing mechanisms of social exclusion⁶².

The main specific target groups are:

- Single mothers;
- Women living alone;
- Women in precarious situations;
- Women aged 55 to 74;
- Women with a disability;
- ...

Levers

The purpose is to reduce the gender gap in access and skills and gradually make it disappear:

- By identifying the target groups where the gender gap in digital skills and access is the largest and/or the most problematic;
- By identifying the reasons behind this gap;
- By setting up and supporting initiatives for these target groups that require a particular approach, especially regarding basic digital skills;
- By encouraging gender-sensitive communication in every contact with the population, in particular regarding eGov;
- By ensuring that training courses about digital skills are inclusive.

⁵⁹ See in particular Women in Digital Scoreboard, [2019](#) and [Eurostat](#)

⁶⁰ Information Society Barometer 2019.

⁶¹ The digital divide varies within the age group and the gender. If we take a closer look at the differences between women and men, it shows that the largest difference is found in the age group 55-74 (8.5 percentage points to the detriment of women). The level of education is also a discrimination factor. The gender gap is larger among women with a low level of education (8.3 percentage points to the detriment of women). Source: Information Society Barometer 2019

⁶² I. Mariën et al, Gender & ICT in België, Stand van zaken, Idealic.be, 2017, imec, SMIT, VUB. Figures of the King Baudouin Foundation show that 39% of the Belgian population has little to no digital skills. This includes 10-15% of people for whom "digital inequalities" increase other existing inequalities. In the footnote related to increasing inequalities.

Involved players:

Governments; regions and communes; private sector; civil society;...

5.2 Promoting cultural diversity in the technology sector and this sector among women of foreign origin

Challenge

These days, our country is faced not only with a shortage of qualified technological profiles, but also with high unemployment among people of foreign origin or migrants. If we analyse the unemployment rate, the recruitment rate and the career development from the point of view of cross-discrimination (meaning discrimination on the basis of multiple factors), we can see that the population groups most discriminated against are women of foreign origin and/or women with a disability. These are not only new migrants, but also women of foreign origin, who were born and raised in Belgium in a classical education system. It concerns a part of the population that, according to various statistics, often lives in neighbourhoods with a low economic index and far from the labour market, lacking the necessary resources, networks and information to board the digital train. These women face various barriers - in addition to those mentioned earlier in this strategy - such as culture, language or even isolation. It is about developing citizens with many skills to fill the gaps in digital jobs.

Levers

Technology in particular requires having different profiles in order to create innovative solutions for the largest possible group of users. Different studies have shown that when teams are more inclusive, especially with regard to gender, ethnic origin, culture and disability, they are also more innovative and generate more income for the organisation that employs them. It is about making companies aware of the importance of creating a truly inclusive policy:

- By encouraging organisations to include a recruitment policy in their personnel plan that promotes inclusion and universal accessibility;
- By encouraging organisations to sign the 'Women in Digital' charter.

It is also about promoting education, training and jobs among women and girls of foreign origin.

- By showing accessible, inspiring role models of foreign origin as well in communication campaigns;
- By cooperating with media that reach this target group, with the municipalities (as a local link to reach the population furthest from the institutional framework) and with influencers on social media;
- By stimulating internships in companies to ensure a first contact and perhaps a permanent position;
- By using the DPS (Digital Public Spaces) to provide a basic training and fight the digital divide;
- By mobilising the professional associations for people of foreign origin, as well as the socio-cultural associations to raise awareness among and inform these target groups;
- By promoting training courses (BeCode, Molengeek, HBO5, Ecole19, Interface3, TechnofuturTic, le Wagon, Girleek,...) that succeed in reaching these target groups and

encourage them to inspire others, for example by sharing their best practices with other training providers.

Involved players:

Governments; Flemish Government; Brussels Capital Region; Walloon Region; German-speaking Community (Ostbelgien); FPS Economy; private sector; civil society; professional associations; social-cultural associations; trade associations for people of foreign origin; media;...

5.3 Skills enhancement of female entrepreneurs and managers (reskilling/upskilling)

Challenge

At the end of their careers and/or in the light of continuous evolutions, female entrepreneurs and managers may feel “overwhelmed” by technological changes. However, companies that are not online, lose out on growth opportunities and competitiveness. Too often, female entrepreneurs and managers do not know how to update their technological knowledge to meet their needs.

Levers

The aim is to encourage training throughout one's professional career, also for female entrepreneurs and female managers:

- By setting up and supporting continuous training initiatives (reskilling and upskilling) aimed at female entrepreneurs and managers, depending on the needs of their business (online accounting, diary management, stock control, HR management, etc.)

Involved players:

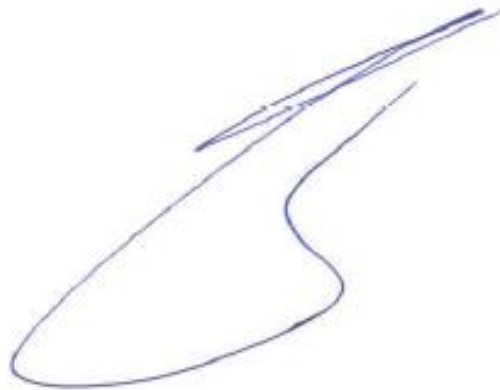
Governments; Flemish Government; Brussels Capital Region; Walloon Region; FPS Economy; private sector; civil society; professional associations;...

III. Signature

The list of participants is **open** to any organisation at any policy level that wishes to participate. The ministers concerned at the different policy levels will link the organisations under their authority when the strategy is implemented.

For the Kingdom of Belgium,

Alexander DE CROO

A handwritten signature in blue ink, consisting of a large, sweeping loop followed by a smaller, more intricate flourish.

Prime Minister

Pierre-Yves DERMAGNE

A handwritten signature in blue ink, featuring a large, rounded loop with a small horizontal stroke at the bottom.

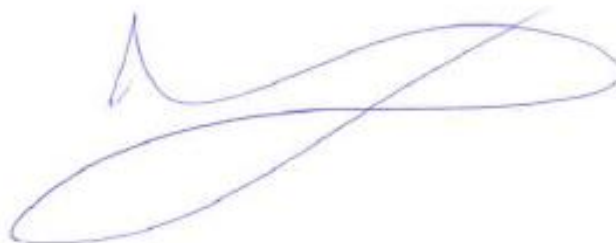
Deputy Prime Minister and Minister of the Economy and Employment

Petra De Sutter



**Deputy Prime Minister and Minister of Public Administration, Public Enterprises,
Telecommunication and the Postal Services**

Mathieu Michel



**State Secretary for Digitization, in charge of Administrative Simplification, Privacy and
the Buildings Administration, added to the Prime Minister**

For the Walloon Region,



**Elio Di Rupo
Minister President**

For the Brussels-Capital Region,



**Rudi Vervoort
Minister President**

For the Flemish Government,



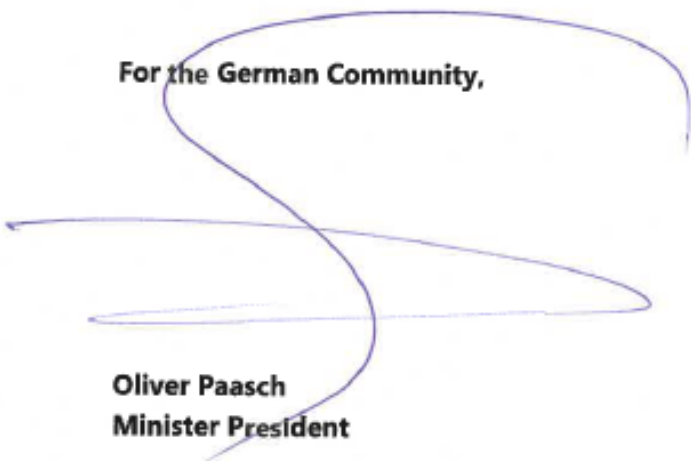
**Jan Jambon
Minister President**

For the Wallonia-Brussels Federation,

A stylized, flowing signature in blue ink, consisting of a large loop followed by a horizontal stroke and a small upward flick.

**Pierre-Yves Jeholet
Minister President**

For the German Community,

A large, complex signature in blue ink, featuring multiple loops and a long horizontal stroke that extends to the left.

**Oliver Paasch
Minister President**

For the COCOF,

A signature in blue ink, starting with a large loop and followed by several smaller, connected loops.

**Barbara Trachte
Minister President**

For the Institute for the equality of women and men,

A signature in black ink, characterized by sharp, angular strokes and a large, central loop.

**Michel Pasteel
Director**

For the sectoral organisations (AGORIA, FEBELFIN,...),

For the social partners,

For the non-profit organisations and Collective centres (Vie Féminine Bruxelles, Infor Femmes, Lire et Ecrire Bruxelles,...),

Etc.