



INNOVATION COUNCIL

Promising Policies and Programs for Closing the Gender IP Gap

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Introduction

In the realm of intellectual property (IP), a significant gender disparity persists, a problem that is as pronounced in Europe as it is in other parts of the world. The global gender patent gap is substantial, with only 16 percent of all patents under the Patent Cooperation Treaty (PCT) in the World Intellectual Property Organization (WIPO) filed by women. Meanwhile, only 13.2 percent of inventors in Europe are women.

This note presents a sampling of promising practices primarily in Europe made to address lower participation in IP by women, and when applicable, a description of the impact of these initiatives. NGO and private sector initiatives are included alongside those from the public sector, in line with the reality that the gaps left by the government are often filled by private organizations.

Adopting the approach recommended by *The Gender Patenting Gap*, a 2016 paper by the Institute for Women's Policy Research (IWPR), the promising initiatives are organized in relation to five major themes, each related to a challenge faced by women as they seek to create and commercialize intellectual property.

Three of the themes are also in the IWPR paper:

- (1) Encourage women's cultivation of industry contacts and higher-power networks,
- (2) Support efforts to improve gender diversity in STEM, and
- (3) Offer women assistance with patenting/IP costs. We also add
- (4) Awarding, often monetarily, high-achieving women innovators, and
- (5) Increasing access to loans and other financial instruments for women entrepreneurs.

We find evidence that Europe has made strides in each of our 5 major themes, with Horizon 2020 marking the first framework program to prioritize gender as a cross-cutting issue. This initiative aimed to integrate the gender dimension into research and innovation content, leading to an increased number of "gender-flagged" topics across the program. In particular, Horizon 2020 funded numerous national programs aimed at increasing gender equality in research and released comprehensive reports to provide "researchers and innovators with methodological tools for sex, gender, and intersectional analysis." A full evaluation of Horizon 2020 is scheduled to be released in the fourth quarter of 2023. Its successor, Horizon Europe (also referred to as Horizon 2027) continues to include similar ideas, having made the integration of the gender dimension into research and innovation content a requirement by default for all participating countries. Many of the promising initiatives reviewed in this document appear to have resulted from these programs.

Europe in Global Perspective

Despite promising efforts, Europe continues to lag other regions with respect to the gender IP gap. Europe trails the US and some Asian countries in terms of both patent rates and policies. It is forecasted that Europe will only close the gender patent gap in 2090, making it, along with Oceania, the last region expected to do so.

At the same time, evidence indicates that Europe is far from homogenous when it comes to opportunities for female inventors. UNESCO data reveals what it labels a "gender paradox" with the most innovative countries in Europe like Germany, Austria, Switzerland, Norway, Netherlands, and the small nations of Liechtenstein and Luxembourg having the lowest rates of female patentees. In contrast, countries like Latvia and Portugal have some of the highest rates in the world for female participation in patenting (31% and 27% respectively).

Gender Disaggregated Data

While this paper highlights numerous initiatives aimed at closing the gender gap in IP, it's critical to remember that the majority of these have not been thoroughly evaluated for impact. This underscores the importance of robust and consistent data collection, specifically data disaggregated by gender, as an essential tool for assessing the effectiveness of these programs and identifying best practices. Data collection and analysis are also crucial at the start of the process to develop programs for IP diversity; identification of the nature and scope of the challenges can support the development of effective policies and programs.

We acknowledge several organizations that diligently collect such data, understanding that these practices are key to progress toward gender equality in IP. Among these, WIPO has made and continues to make a significant contribution, through the development of the name dictionary for analyzing IP databases, the publication of analysis about gender representation in the PCT (and forthcoming research about other IP registration systems), and bringing together scholars to exchange information about methodologies. Such work not only provides visibility

and transparency around IP diversity; it also serves as a vital resource for future research and policy-making.

The European Patent Office (EPO) has been proactive in releasing studies on gender imbalance in the field of innovation. Through its report, *Women's participation in inventive activity*, the EPO illuminates the challenge facing European nations regarding enhancing women's participation in science, which it identifies as a vital factor for the region's future sustainability and competitiveness. Other non-profits and think tanks are making progress in this area. For example, 4IP Council is dedicated to cultivating high-quality academic insight and empirical evidence on topics related to intellectual property and innovation. Recognizing the value of gender balance, it has instituted a Gender Equality Plan to direct its future commitments. The Global Research Council, which underlines the importance of gender-disaggregated data collection, and the European Association of Communications Agency, which endorses the same approach to data, also deserve acknowledgment. Their work contributes to a better understanding of the landscape and aids in crafting more effective interventions.

Summary

The following pages present project summaries for each of the five categories mentioned in the structure section of this paper. The policies under the respective categories are described including, where possible, information about their impact. The examples of promising initiatives presented are by no means exhaustive; rather, they provide a general idea of the types of initiatives that are in place. Based on our research, most European countries focus on category (two), that is, supporting efforts to improve gender diversity in STEM. Our view is that these policies must be complemented with other initiatives specifically targeting the uptake of IP rights, notably patents, by female inventors and entrepreneurs, along the lines of programs that are being tested in other regions. At the end of this document, we briefly showcase some promising policies in other regions.

At this time, we find little evidence of quantitative evaluations of the gender IP gap initiatives described in this paper. For some projects, their nature is such that it will only become possible to understand their impact in another decade or two, at which point, a full evaluation should be done. For most programs, we would encourage quantitative and qualitative evaluations of initiatives wherever possible. This will help pave the way for the adoption of best practices so that other countries and organizations can emulate them. Most of the initiatives in Europe that are described in this paper do not directly address the topic of women accessing IP tools, but instead aim to create greater entrepreneurial paths for women. As a result, the most prominent initiatives relate to promoting women in STEM or encouraging networking for women entrepreneurs. Unlike in Asia or North America, we find few initiatives giving direct financial support to women for accessing IP tools. The notable exception relates to banks, which have opened schemes for accessing VC and loans for women entrepreneurs.

1 Encourage women's cultivation of industry contacts and higher-power networks

EU Commission, France, Germany, Turkey, Switzerland, Variety of European National Patent Offices

These projects all share a common theme of fostering women's cultivation of industry contacts and higher-power networks. They aim to empower women entrepreneurs by promoting the exchange of ideas, connecting women business leaders, imparting technical knowledge, facilitating access to funding, and offering entrepreneurial training. These initiatives collectively underscore the importance of encouraging women to build industry contacts and establish influential networks, a crucial step towards bridging the gender gap in innovation and entrepreneurship.

Networking/Community Building

The EU Commission supports two important programs, WEgate and EEN, which help women meet other female entrepreneurs who can help them and which create a welcoming community.

WEgate: This project focuses on building a community of women entrepreneurs driven by passion and a desire to change the market. It offers growth and networking opportunities, promotes the exchange of new ideas, and provides constant market updates through webinars and international initiatives.

Enterprise Europe Network (EEN) – Women Entrepreneurship Sector Group: EEN operates a Women Entrepreneurship sector group (WEG) that helps women entrepreneurs find clients and cooperation partners, access innovation services, and join existing women entrepreneurship networks.

Women in IP: This German-based non-profit platform was established to encourage the exchange of experiences and cooperation among women involved in the field of intellectual property. Its members include patent attorneys, lawyers, judges, professors and patent engineers.

Knowledge Sharing

ABEONA: This project brings together French and Canadian organizations supporting women in STEM and female founders to facilitate knowledge sharing and enhance support for women in business. It features programs alongside recommendations to achieve gender balance in tech. It is aided by an array of French and Canadian organizations, such as 50inTech which accelerates the careers of women in tech by matching talented people with safe workplaces and important networks.

Women entrepreneurs project: This EU-funded project, based out of Germany, aimed to set up and strengthen international and inter-sectoral collaboration in the research field of competence development in young women entrepreneurs. It researched and developed an educational program to enhance the ratio of successful young women entrepreneurs across Europe. Though academically focused, their plan aimed at the "commercialization of innovations [for women], building upon an exploitation plan."

Finance and advice for women in business: This project provided financial and technical assistance to women-led businesses in Turkey. Funded by the EBRD, it aimed to increase women's access to finance, know-how, and non-financial business development services. This knowledge is invaluable for women innovators who disproportionately have difficulty accessing the financial sector. It ran between December 2013 and December 2017, with a total budget of EUR 38,000,000 (85% EU financing, 15% from Turkey). They also made loans available to women-led businesses.

Business O féminin: This private-French initiative aims to accelerate the career growth of women and provides entrepreneurial guidance. It offers various resources to help women advance in their careers and navigate the entrepreneurship landscape.

National IP Offices

Several programs exist to aid women in their access to IP tools, mostly through national IP offices. For example, the Swiss Innovation Agency (InnoSuisse) offers several tools to women entrepreneurs such as start-up coaching and helping women entrepreneurs discover the strengths, weaknesses, opportunities, and risks of their start-ups. It provides recommendations on key milestones for the successful development of their businesses. In general, you can find options that aid women entrepreneurs to succeed in some form from different IP offices in many European countries.

For example, the German Patent and Trade Mark Office (DPMA), Italian Patent and Trademark Office (UIBM), and Spanish Patent and Trademark Office (OEPM) all, to some degree, implement measures to promote women inventors and entrepreneurs. They organize events and provide training to women on how to protect their inventions and innovations using IP rights. They also offer advice and support to women who want to apply for patents, trademarks, and designs. Italy has also been particularly investing in women-owned companies for over 20 years.

Analysis

Recalling our central research question—what policies exist in Europe to assist women in gaining access to and use of IP, and when evaluated, what has been their impact—it is apparent that enhancing women's access to industry networks is an important strategy.

For example, WEGate notes on their website that they have helped showcase the power of networking platforms in elevating women's visibility and innovation in STEM fields. By connecting seasoned entrepreneurs with budding women in STEM, WEGate has contributed to the success of businesses. One example they give is of the F.lli Bonfanti button factory in Turin, Italy. The platform provided access to matchmaking initiatives and funding opportunities, leading to increased visibility and innovation.

The Enterprise Europe Network (EEN), with its extensive reach and expert resources, has been a valuable support system for businesses worldwide. Similarly, the ABEONA network has conducted in-depth interviews with organizations supporting women in tech and entrepreneurship have provided valuable insights into effective support practices. These reports are available online on their websites. Likewise, the Women Entrepreneurs Project in Germany has made significant strides in promoting female entrepreneurship through conferences, workshops, and research publications.

Women in IP has demonstrated potential through its regular organization of online and offline gatherings, and the offering of specialized seminars and training courses

tailored specifically to women working in intellectual property. A key initiative is their mentorship program, which pairs mentors and mentees for a duration of twelve months, providing invaluable professional guidance.

Business O féminin has provided career enhancement and skill development opportunities for more than 2000 women. This initiative has been promising in helping women boost their careers and grow their professional abilities. However, it's important to note that there is a membership cost associated.

Notably, in Turkey, the "Finance and Advice for Women in Business" project has reached out to SMEs across the country (especially outside the mainly populated areas), providing favorable borrowing conditions and facilitating access to finance for micro-enterprises. This initiative has resulted in the creation of 914 new jobs and the retention of 841 existing ones.

The national IP offices' efforts, while difficult to isolate from other factors like increased women's participation in STEM, have seen a definite increase in the percentage of patents issued to women since the start of the 21st century.

In conclusion, networking and creating supportive communities are crucial strategies in the quest to increase women's access to and use of IP in Europe. The current initiatives show promising ideas for how peer support, mentorship, skill development, and accessible financing can help in fostering an environment where women can succeed in the world of IP.

2 Support efforts to improve gender diversity in STEM

EU, EPO, L'Oréal, Switzerland, Italy, Poland, Germany, Netherlands, Spain, United Kingdom.

These projects, spanning across Europe, are united by a shared commitment to bridging the gender gap in STEM fields. This is, perhaps, the longest list of our 5 initiatives, but it is not even close to being exhaustive. Nowadays, many programs exist to bridge the gender gap in STEM. In particular, they aim to increase women's participation in STEM, provide re-training for innovative women, inspire girls to join STEM fields, reduce harassment in research, and fund female STEM students. These initiatives collectively underscore the importance of gender equality in STEM in order to foster inventive activities by women.

Women in Higher Education

Women in Science Young Talents Programmes: This initiative by L'Oréal and UNESCO supports women scientists at doctoral and post-doctoral levels to pursue research. It is available in an array of European countries and around the world. The program supports women to pursue their research in institutions at home or abroad, aiming to assist one thousand young women to take successful steps into digital job-related employment.

Initiatives for Girls In STEM

There are a number of initiatives to encourage young girls to pursue STEM careers. The following are some of the examples.

Futur en tous genres: This Swiss initiative allows young girls to experience practical aspects of professions and fields where their gender is underrepresented. It encourages them to consider their interests and talents when choosing a career and to break free from gender-based prejudices. It should be noted, the same is done for boys to explore fields traditionally dominated by females.

Girls Code It Better: This Italian initiative, run by the Officina Futuro Fondazione W-Group Foundation, targets secondary school girls. It aims to address the digital skills gap by training girls in ICT-related fields. The initiative is completely free and open to all girls in Italy. The project is

implemented in 7-European countries now and is led by trained teachers with ICT knowledge and a coach with technical skills.

Girls as Engineers! and Girls Go Science!: The aim of this Polish project is to provide motivation and support for girls in IT and STEM. The program introduces technical and engineering studies to high-school girls to promote the attractions and long-term potential benefits of a career in one of the tech professions. The initiative is managed by both the education and patent offices in Poland.

Science: It's a Girl Thing!: This EU campaign encourages girls to study STEM subjects and consider research careers. It aims to get more girls interested in science and encourage more women to choose research as a career. This has included promotional events, videos, and posters.

Financing Women in STEM

Westerdijk Talent Impuls initiative: This Dutch initiative provided additional funds for the appointment of 100 women professors, aiming to increase the share of women professors in academia. The hope being that this would also increase women's innovative output and access to IP tools.

DFG-funded research networks: This initiative supports German science networks whose coordinator belongs to an underrepresented gender at the leadership level. They are eligible to apply for additional, uncommitted funding of EUR 80,000 per year for facilitating the coordinator's role. The aim is also to promote the visibility of women in decision-making positions.

Promoting Gender Equality in Research and Teaching

Mind the Gap: This project, carried out by a consortium of partners from the United Kingdom, Spain, and the Netherlands, brings together vocational education and training (VET) teachers and individuals working in gender, diversity, and STEM-related subjects. It aims to address the widening skills gap in the sector and the clear division between men and women. It will help teachers be more inclusive and gender-aware in their teaching.

LIBRA and SAGE: The SAGE and LIBRA projects aim to implement Gender Equality Plans (GEPs) to promote gender equality in research and decision-making processes. These plans' aim is to create a more equitable research landscape. SAGE aims to promote and foster greater gender balance and awareness in research. Similarly, LIBRA will conduct an external assessment of each partner organization to identify gender biases, design strategies to remove these biases and monitor the results to ensure sustainability. This includes developing training programs, mentoring schemes, and family-friendly policies to improve the recruitment of women in science. The point of these initiatives is to eliminate the unfair treatment of women in research, including when it comes to giving credit and putting a name on the patent.

Analysis

Revisiting our guiding research question—what policies exist in Europe to promote women's access to and use of IP, and what has been their impact—it becomes clear that one of the key strategies is bolstering women's participation in STEM.

Consider the program "Girls Code It Better" in Italy. This initiative has forged strategic partnerships and carved out a prominent place in the country's educational landscape. The broad reach of this program shows the potential promise of directly encouraging young women to engage with coding and, by extension, fields related to IP.

SAGE and LIBRA have been particularly impressive. The SAGE project has not only published five peer-reviewed papers but also engaged with a multitude of stakeholders, contributing to the discourse on gender equality in research. Meanwhile, the LIBRA project has made significant strides in gender equality, including filling 18 leadership positions with women. This achievement is particularly notable in institutes that previously had a poor record in gender equality. They continue to study gaps in

gender equality within 10 partner institutes in order to develop tailor-made gender equality plans, focusing on how the research centers could overcome their specific challenges.

Other projects, such as Science it's a Girl Thing!, have seen mixed success. Some of its promotional videos have been misguided, receiving criticism from the web. However, they have done well to fight stereotypes. Impressively, the L'Oréal-UNESCO For Women in Science Young Talents Programs have provided funding to over 250 talented young female scientists, creating a global network of scientific partners. This, in turn, can potentially lead to a greater presence of women in IP-related fields. Our analysis of these initiatives emphasizes that bolstering women's participation in STEM is an important factor in promoting women's access to and use of IP in Europe. It's a long-term endeavor, and while immediate impacts can be challenging to measure, these initiatives lay promising groundwork for a full evaluation and potential adoption by other countries.

3 Offer women assistance with patenting/IP costs

4 Awarding, often monetarily, high-achieving women innovators

EU Commission, Microsoft, Imperial College London, Croatia, France

The following initiatives mostly represent a concerted effort to enhance women's access to Intellectual Property (IP) tools, patent acquisition, and associated funding in Europe. These policies aim to assist women with patenting as well as other IP costs. While these initiatives are making strides, it's important to note that Europe still lags behind countries like the US and India, which offer fee reductions for women seeking patents. There is a clear need for more comprehensive and inclusive strategies in Europe to level the playing field. Some universities, such as Imperial College London, have pioneered promising schemes that could serve as models for others. Additionally, European women have been able to leverage global initiatives to their advantage. Croatia's provision of affordable loans remains the most promising national effort we found in offering women assistance with IP costs.

We also showcase some examples of awards available to women innovators, especially one's with monetary value. We show only the big awards, but a variety of smaller ones exist depending on location and industry.

Corporate Initiatives

The Microsoft #MakeWhatsNext Patent Program: This program provides women with patent support and mentorship, enabling them to protect their innovative ideas. Microsoft's patent law department covers all legal expertise and application fees pro bono, with an estimated value of \$50,000. While it's a global initiative, it has assisted European clients, such as the predominantly female Greek team, AMANDA, who developed a virtual reality game to understand bullying and got a patent through the help of Microsoft.

Government Initiatives

The **Women TechEU** pilot is a significant initiative funded under the European Innovation Ecosystems work program of Horizon Europe. This initiative aims to bridge the gender gap in the tech industry by providing targeted support to women-led deep-tech start-ups. The program offers funding and first-class coaching and mentoring to 50 promising start-ups from EU Member States and Associated Countries. This initiative not only provides direct financial support but also fosters a supportive environment for women to thrive in the tech industry.

The **Women Entrepreneurs' Loan Program** in Croatia targets trade and craft companies, sole proprietorships, co-operatives, and institutes that are majority-owned and led by women. The program provides favorable loans to women entrepreneurs for a variety of investment purposes. These include initial funding, but also a range of IP services such as patents, licenses, and copyrights. The program also allows for the provision of permanent working capital, making up to 30% of the total loan. The loan conditions offered by this program are much more favorable than the current market situation, making it a valuable resource for women entrepreneurs seeking to protect their inventions and innovations.

Academic Initiatives

Imperial College London represents a promising academic initiative that helps create an ecosystem that supports women seeking to commercialize their innovations. Their programs, WE Innovate and WE Accelerate, provide early stage startup teams with coaching, mentorship, and funding. A key component of this support is the WE Invent program, which covers the costs of filing a first patent for inventions developed by female researchers or teams led by women that they wish to patent themselves. This scheme also encourages entrepreneurial thinking among female researchers and staff members.

Awards for Female Inventors

The **Women Innovators Prize** awards money to the most talented women inventors from across the EU and associated countries. The winner receives €100,000, and €70,000 and €50,000 is given to two runners-up. The **Rising Innovators Prize**, is aimed at promising young innovators under the age of 35, awards are €50,000 to the winner, and €30,000 and €20,000 to two runners-up. The **EIT Women Leadership Award** is given to exceptional women leaders from the EIT Community. The winner is awarded €50,000, and two runners-up are awarded €30,000 and €20,000 respectively. The three aforementioned prizes are managed jointly by the European Innovation Council and SMEs Executive Agency and the European Institute for Innovation Technology.

Be a Boss is a national event in France designed to foster entrepreneurial thinking among women. Each year, it allows over 1000 women, who are either entrepreneurs or have a business idea, to attend a forum in their region

and/or present their project to compete in the "Be a Boss Awards". The event is unique in its national scope, with nine regional stages, and a final stage in Paris. After a final pitch, the jury selects the three winners of the Be a Boss Awards 2023. Each of the three winners receives significant cash prizes. Each regional finalist also receives a one-year membership to the association "Les Rebondisseurs Français". This will give them access to the association's tools, resources, and network, which works to change the perception of failure and promote entrepreneurial resilience.

AnitaB is an organization that provides women and non-binary technologists with opportunities to connect, inspire, develop professional skills, find mentors, and gain recognition year-round. The organization recognizes the accomplishments of women in computing and values their contribution through a variety of small awards.

Analysis

The Croatian loan program is at the forefront of promising financial aid strategies, having become the largest program for funding women-led entrepreneurial projects in both funding volume and user base in Croatia. By the end of June 2014, it had approved 261 projects and disbursed a total of €15.912.329. This amounts to an average of €61,000 per project, a significant financial boost for female entrepreneurs, particularly in the service sector. The program underscores the potential of financial interventions, such as interest rate subsidies funded by the state, in promoting women's engagement with entrepreneurship and IP.

Meanwhile, Imperial College serves as a promising example of how academic institutions can help women access patents. Success stories include Professor Aylin Hanyaloglu of the Department of Metabolism, Digestion, and Reproduction. In the course of her research, she identified a small molecule that activates a signaling receptor involved in labor that can control both

contractions and inflammation, opening up the possibility of a drug for managing, or even preventing pre-term birth. She was able to get a patent on her invention through We Innovation at Imperial College.

Further, initiatives, like France's Be a Boss program, illustrate how incentives can be used in stimulating innovation among women. By turning innovation into an enjoyable endeavor and offering substantial cash prizes, the program motivates women to engage in the innovation process.

In conclusion, financial assistance policies are a promising and direct tool in bolstering women's access to and utilization of IP in Europe. These case studies illuminate the transformative potential of these policies, whether they be direct financial aid, institutional support for patent acquisition, or financial incentives for innovation. We hope for a full-scale evaluation of these projects to adopt a best practice.

5 Increasing access to loans and other financial instruments

EU, France, United Kingdom, Cyprus, Germany, Netherlands, Belgium

Numerous initiatives have been implemented across Europe, aimed at enhancing women's access to the financial sector, including credits, banks, venture capital, and other financial instruments. These programs are particularly focused on empowering women entrepreneurs, ensuring they have the necessary resources to launch and sustain their enterprises. Strategies employed often include providing credits or cheaper loans, making it more viable for women to venture into entrepreneurship. Meanwhile, some policies also directly provide venture capital or funding to women, ensuring they have the financial backing needed to transform and protect their innovative ideas.

Policy Commitments

Investing in Women Code: This UK initiative commits organizations to advance female entrepreneurship by assigning a member of senior leadership to support equality in financial access, increasing transparency in data related to female entrepreneurs, and improving internal practices to assist women. By doing so, it aims to enhance women entrepreneurs access to finance, tools, and resources within the financial services sector. The companies which do so are able to get endorsed and are given guidelines to follow.

Venture Capital and Investment Funds

SISTA: This French initiative focuses on advancing women in the entrepreneurial ecosystem through three verticals: supporting women in fundraising by providing access to a committed investor network and recognized community of founders and mentors, educating VC and CVCs on diversity issues, supporting the "feminization" of their portfolios and teams, and producing content and studies to measure actions and monitor societal evolution.

Borski Fund: This Dutch fund invests in companies that strive to reduce the gender gap. Namely, they invest in female entrepreneurs to help them reach their full potential. The Borski Fund will consider investing venture and growth capital in companies with at least one female founder.

InvestEU: While still in its implementation stages, this EU investment program would aim to stimulate gender-smart financing that funds, empowers, and inspires female founders and investors. It presents an important opportunity for the EU to facilitate more sustainable and inclusive growth by encouraging female-led innovation.

European Women in VC: is a community of over 1000 senior female venture capital investors from all over Europe and beyond, aiming to change the status quo and give female easier access to VC investors. Their action plan includes establishing a €3B Fund of Funds for women-led funds, granting loans to the General Partner contribution up to Fund II of the firm, setting up relationship-building events for Women-Led VC Firms and Limited Partners, and encouraging financial tax incentives for investment in Women-Led Funds.

Financing and Credit Schemes

Goldrausch Frauennetzwerk: For over three decades, this German non-governmental association has offered interest-free microloans to women entrepreneurs in Berlin, with recent preference given to women over 45 and those with a migrant background. Their beneficiaries primarily consist of single-person enterprises in the service sector. The association provides microloans ranging from €1,000 to €10,000 at an effective interest rate of 8.9% p.a.

The Cyprus Women's Cooperative Bank Ltd.: This co-operative bank has aimed to bolster women's entrepreneurship by providing specialized programs and easy access to finance. They offer small loans of up to €100,000 to SMEs, alongside free advice and access to a professional network. It also offers flexible repayment plans, grace periods of up to two years, interest rates of around 4%, and the possibility of accessing funds within 48 hours.

Outcomes

Returning to the overarching research question of which policies exist in Europe to facilitate women's access to intellectual property (IP) tools and the known impacts of these policies, we can clearly see the potential link between access to financial instruments and the ability to exploit IP.

Despite the challenge of female founders receiving less than 5% of all venture capital in Europe, several initiatives have been attempting to make significant strides in closing this gap. SISTA and Investing in Women Code have begun to make inroads and have inspired countries like Belgium to launch similar programs, attesting to their potential impact. Furthermore, InvestEU promises to be a critical step towards bridging this divide if and when it is implemented.

Other initiatives have already seen substantial promise. Germany's Goldrausch initiative exemplifies the power of member contributions and partnerships in supporting women entrepreneurs. From 1982 to 2007, it distributed around €850,000 to more than 450 businesswomen and projects. This collaborative approach was further demonstrated when Goldrausch, through a partnership with GLS Bank, granted 70 loans totaling €240,000 between

September 2010 and 2013, with an impressively low default rate of just 1.3%.

Similarly, the Cyprus Women's Cooperative Bank has seen impressive growth, with deposits surging from €240,000 in 2001 to €17.8 million in 2009. During this period, it supported entrepreneurship through loans totaling €14.1 million, including support for 119 start-ups by women entrepreneurs aged under 39 and providing flexible funding to another 182 female entrepreneurs. The bank is now exploring the potential of starting a women's business incubator.

Private initiatives, such as European Women in VC, are also playing a significant role where governmental support may be lacking. Backed by EU Commissioner Mariya Gabriel, the group comprises over 250 investment team members, 45% of whom are women, and represents over €3 billion in assets.

These examples demonstrate the potential role that dedicated initiatives and specialized financial institutions can play in promoting female entrepreneurship. After all, access to financial institutions is invariably tied to accessing intellectual property tools.

Select Policies Outside Europe

African and Asian Initiatives

These projects are notable initiatives existing outside of Europe. We focus on Africa and Asia here. In April 2023, during World IP Day, WIPO showcased Policies and Measures from around the world outside of Europe and North America. These are some of the most promising initiatives, and many target access to IP directly, unlike the vast majority of policies seen in Europe. Apart from simple discounts to accessing IP tools, one should take note of the more creative solutions employed by the initiatives in this section.

Africa

African Continental Free Trade Area (AfCFTA) IP protocol: A protocol that addresses women's issues in innovation and entrepreneurship by providing them with better access to information and intellectual property rights. Importantly, it also highlights important issues in ensuring equitable access to competition rights and investment opportunities.

IP for Women Entrepreneurs project: An initiative launched by WIPO in Uganda in collaboration with independent organizations that has helped 70 women entrepreneurs to register their trademarks through raising awareness and helping people apply on the ground.

Asia

WeEmpowerAsia: A United Nations program aimed at increasing women's access to economic opportunities and leadership positions.

The Asia Pacific Women Innovators and Entrepreneurs Program: Launched in 2022, with 12 episodes of weekly webinars, attended by 50 participants every week from Sri Lanka, Nepal, Vietnam, India, and China, reaching a total of 150 women entrepreneurs and inventors.

IPOPHL's programs for women: A series of programs established by the Intellectual Property Office of the Philippines (IPOPHL) to support women inventors and designers. In March 2023 (as part of its Women's Month celebration), the IPOPHL launched the Juana Patent and Juana Design Protection Incentive Programs (JPIP). As a result, eligible women may benefit from financial support (waiving the fees when they apply for invention patent grants or register their utility models or industrial design). This program follows a successful similar program which was focusing on trademarks (the Juana Make a Mark Program).

Inclusivity in Singapore: The IPOS in Singapore, another leading IP Office of Asia established procedures to ensure all its IP policies are drafted in an inclusive manner. This year, the IPOS will once again celebrate World IP Day by organizing a unique panel discussion to tackle the topic of women in innovation and intellectual property.

IP Diversity Initiatives in China: There have been a number of policies introduced by the Chinese government to promote female participation in various fields, including entrepreneurship and STEM, which have boosted the share of female innovators. China ranks third in the share of female innovators. China's policies focus on "three principles: protection of women's rights and interests and raising society's awareness of gender equality; ensuring women's right to education and employment; and creating a fair workplace environment (e.g., Women's stress-relief mechanism)." China also has more female IP practitioners than males.

South East Asia: India

Fee Reductions: Remarkably, the Office of the Controller General of Patents, Designs, and Trademarks (CGPDTM) in India, offers an 80 percent fee reduction to start-ups and women entrepreneurs. 28.3% of patents launched in India come from women. There is still plenty of progress to be done, but this puts India ahead of every European country except for Latvia.

Women in Science (WISE): A program launched by India's Department of Science and Technology offering women research grants, fellowships, and training, aiming to encourage them to pursue careers in STEM fields.

Women's empowerment and re-training patent examiners: Indian schemes like Vigyan Jyoti Scheme, Bio-CARE, and KIRAN encourage women in research and development activities. The Department of Science and Technology also offers enhanced funding for women's universities. Meanwhile, India has launched an initiative to re-train unemployed female engineers to become patent examiners with the aid of their already advanced technical skills! This is known as WOS-C, and it is part of a larger initiative to "support women's re-entry in the science and technology (ST) workforce after a career break."

Outcomes

The diverse initiatives across the globe targeting gender equality in the realm of intellectual property (IP) rights are contributing to the ongoing progress of closing the gender patent gap. Progress can be seen in numerous countries. For example, in China the number of female IP practitioners now surpasses that of their male counterparts, indicating a tangible shift towards gender balance in the sector.

India, which recorded the fastest-growing increase in patent applications in 2023, has also launched a number of initiatives. For example, the Indian Office of the Controller General of Patents, Designs, and Trademarks offers an 80% fee reduction for start-ups and women entrepreneurs. This has helped in closing the gender patent gap in India and propelling more women to innovate. Furthermore, the Women in Science (WISE) scheme, which offers women registered patent agents, helping inventors secure legal protection for their ideas.

These women now constitute about 10% of active patent agents and IP facilitators for start-ups in India, indicating a

gradual but promising rise in women's involvement in the IP sector.

Singapore has become a hotbed for female inventors as the country continues to enforce fair practices in workplaces and increased the drafting of policies that take women into account.

Meanwhile, in Uganda, the World Intellectual Property Organization's IP for Women Entrepreneurs project has assisted 70 women entrepreneurs in registering their trademarks. This fundamental step empowers them to brand and promote their businesses effectively, thereby research grants, fellowships, and training, has been fruitful. To date, approximately 800 women have received training through WISE. Of these, around 270 have become enhancing their competitive edge in the marketplace.

Such initiatives reinforce the importance of supporting women entrepreneurs, ensuring they have the tools and resources to protect and capitalize on their innovations.

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