European Network For Gender Balance in Informatics (EUGAIN): Activities and Results

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Chapter 2
European Network For Gender Balance in Informatics (EUGAIN): Activities and Results

Letizia Jaccheri ⓘ**, Barbora Buhnova** ⓘ**, Birgit Penzenstadler** ⓘ**, Karima Boudaoud** ⓘ**, and Valentina Lenarduzzi** ⓘ

2.1 Introduction

Women are disproportionately represented in fields such as Informatics (including Computer Science, Computer Engineering, Computing, ICT, Software Engineering) [26–28], spanning from undergraduate and graduate studies to leadership roles in academia and industry. Enhancing female participation in this domain presents a significant challenge for scholars, policymakers, and society as a whole as documented in several scientific studies [2, 6, 8, 9, 14, 26, 29]. Despite widespread recognition of the issue, progress has been sluggish, despite ongoing efforts for change throughout Europe. This motivated the emergence of the European Network

L. Jaccheri (✉)
Norwegian University of Science and Technology, Trondheim, Norway
e-mail: letizia.jaccheri@ntnu.no

B. Buhnova
Masaryk University, Brno, Czech Republic
e-mail: buhnova@fi.muni.cz

B. Penzenstadler
Chalmers University of Technology, Göteborg, Sweden

University of Gothenburg, Göteborg, Sweden

Lappeenranta University of Technology, Lappeenranta, Finland
e-mail: birgitp@chalmers.se

K. Boudaoud
Université de Nice Sophia Antipolis, Nice, France
e-mail: Karima.BOUDAOUD@univ-cotedazur.fr

V. Lenarduzzi
University of Oulu, Oulu, Finland
e-mail: Valentina.Lenarduzzi@oulu.fi

For Gender Balance in Informatics (EUGAIN COST Action) to join forces of 40 countries towards a change. The primary objective of this COST Action is to address the gender imbalance in Informatics by establishing and fortifying a diverse European network of academics actively advancing gender equality within their respective countries, institutions, and research communities. Leveraging their collective knowledge, experiences, challenges, successes, and failures, we aim to identify effective strategies that can be adapted and applied across various institutions and nations. Among its goals, the Action aims to provide the academic community, policymakers, industry stakeholders, and others with actionable recommendations and guidelines to tackle key challenges, including:

- Increasing female enrollment in Informatics programs and careers;
- Encouraging more female Ph.D. and postdoctoral researchers to pursue academic careers and apply for positions in Informatics departments;
- Offering support and mentorship to empower young women in their professional journeys and address barriers preventing them from reaching senior roles.

Chapter Structure Section 2.2 describes the background on gender gap in Informatics, Sect. 2.3 describes the successful interventions to address the gap, and Sect. 2.4 presents the aim of the EUGAIN project, introduced in this chapter. Section 2.5 describes the project implementation, Sect. 2.6 presents the obtained results, and Sect. 2.7 summarizes the entire chapter.

2.2 Background

When designing the European Network For Gender Balance in Informatics (EUGAIN), we started with a set of unstructured activities across Europe and knowledge derived from international research on the topic [19].

2.2.1 Gender GAP in STEM

The gender gap in STEM is widely discussed and recognized, but its relative size among various technology and engineering fields is less understood. Informatics (Computer Science, Computer Engineering, Computing, ICT) is one of the most heavily affected fields where the gender gap brings evident disparities. Areas such as Chemistry and Biology have significantly more balanced gender distribution (sometimes, the gender gap is even reversed, but only on lower career levels). However, gender imbalance is predominantly prevalent in Informatics, Engineering, and Technology, with not much progress observed in the past years, whether in Europe [10, 18] or the US [4]. A study published when EUGAIN was set in June 2019, based on a comprehensive and up-to-date analysis of Computer Science literature, has estimated that the gender gap in Computer Science research (parity

between the number of male and female authors) will not close for at least 100 years [30].

2.2.2   *Informatics Higher Education in Europe*

Higher education statistics for European countries, collected over the past decade show that the strong female underrepresentation in Informatics higher education in Europe is a long-standing problem [19]. At the Bachelor level, in Austria, Belgium, Denmark, Finland, Germany, Ireland, Italy, Latvia, Lithuania, the Netherlands, Poland, Spain, Switzerland, and the UK, 80% or more of the students enrolling or graduating in Informatics Bachelor programs are male. In Bulgaria, Greece, Romania, and Estonia a slightly narrower gap exists, however, women do not represent more than 30% of the Bachelor students [17]. At the Master level participation of women increases in some countries, over 35% of the Master graduates in Bulgaria, Romania and Greece, and around 30% in the UK, Estonia, Ireland, and Latvia, but decreases in others, not surpassing 20% of the Master graduates in Austria, Belgium, Czech Republic, Germany, Italy, Lithuania, the Netherlands, Poland, Portugal, Spain, Switzerland [17]. At the Ph.D. level, except for Bulgaria, Romania, Estonia, Turkey, all other countries have less than 25% of women graduating from Informatics Ph.D. programs, corresponding in some cases to less than a handful of women, as the total number of Ph.D. graduates in many countries is quite small [10, 17]. A temporal analysis of the data shows that, on average, no significant progress in female participation in Informatics higher education has been observed over the past decade in Europe. The same is true for the US, as reported in [25]

Participation in Computer Science was examined by Sax [25], gathering data on college students for four decades and highlighting a persistent, sizable underrepresentation of women in Computer Science in the US. Moreover, only a few women graduating with a Ph.D. in Informatics pursue an academic career, and even fewer progress to the highest academic ranks of an associate or a full professor. Similarly to other STEM areas, in Informatics the pipeline is leaking and glass ceiling persists. In the whole of Europe across all STEM where women and men are balanced in tertiary education, women still take less than 26% of the full professor positions [10]. The very low number of women reaching senior academic positions results in a scarcity of successful female role models to influence the new generations. To be a distinct minority in academia also results in the overload of invitations and requests (committees, administrative department roles, etc.), which penalizes women's careers, impacting negatively their research productivity, their work-life balance, their personal life, and health.

2.2.3   Gender Gap in the IT Industry

The industry also inherits the male-dominated student population. Women are strongly underrepresented among ICT specialists in all EU Member States, which is in a striking contrast with total employment, where women and men are broadly balanced. Figures show that in 2021, an overwhelming majority (84.1%) of ICT specialists employed in the EU were men [12]. This was the case in every EU Member State, the highest shares of male ICT specialists were observed in the Czech Republic (92.6%), Slovenia (90.8%), France (89.7%), Belgium (89.2%), and Poland (89.1%), while Bulgaria (63.4%), Greece (70.6%), Denmark (72.0%) and Romania (70.8%) recorded the lowest [11]. The lack of women contributes to the extensive skills and talent gap between the number of graduates in higher education institutions and the number of job positions available in ICT in Europe. Currently, an average of 53% of European employers say they face difficulties in finding the right people with the right qualifications. The highest percentages were recorded in the Czech Republic (79%), Austria (78%), Malta (73%), Luxembourg (71%) the Netherlands (69%), Slovenia (65%), Germany (64%) and Denmark (61%) [11]. Hundreds of thousands of vacancies for ICT professionals in Europe remain unfilled, and this gap grows as our society moves to a pervasively digitalized world built on unprecedented technological developments. The talent gap in ICT is one of the most serious threats to the economic development of Europe.

   The tech sector's dominantly male workforce intrinsically promotes the creation and development of systems prone to gender bias. From smartphone voice assistants (Android's Cortana, Apple's Siri, Microsoft's Alexa) that are all female with noticeable submissive personalities and ill-equipped to respond to user requests regarding crises that predominantly affect women (e.g., sexual assault) [31], to activity trackers that fail to measure steps in the, predominantly female activity of pushing a stroller. Transport networks that ignore the so-called "mobility of care" and AI recruiting technology developed trained predominantly on men's résumés are among the many examples, more are found on the EU Report of the Expert Group "Innovation through Gender" and the website of the international project on Gendered Innovations. Despite the clear negative impact and consequences of a strongly gender-unbalanced environment, unfortunately, the fight for gender balance and equality in Informatics is seen as a women's problem. Projects, programs, actions, and strategies are invariably led by highly motivated and achieving women who volunteer their time to establish a more equal environment and pave the way for the new generation of female scientists. Going beyond their daily work, they are responsible for the monumental effort, and comparatively more moderated funding, that has been spent on the efforts for gender equality in Informatics.

2.3   Successful Interventions

Despite some overall discouraging numbers [17], some remarkably successful examples at the university level are found in the US as well as in Europe. On a global level, we find work by UNESCO on closing gender divides in digital skills through education [31].

In the USA, the most famous examples are Harvey Mudd College and Carnegie Mellon where in the past decade gender parity has been achieved in Computer Science entrants and graduates [13]. Although inspiring, these efforts remain isolated and proved difficult to escalate to more institutions and to improve the national statistics.

Europe still lags behind the US in terms of funding, successful examples, and the level of organization of the community. Organizations and groups such as AnitaB.org[3], ACM-W [1], CRA Women [7], National Center for Women & Information Technology, IEEE Women in Computing Committee [16], Association for Women in Computing [5], and Girls Who Code in partnership with industry have established a thriving community empowered to inspire and encourage the new generations and to support the careers women in Computer Science. The most spectacular example of this community is the Grace Hopper Celebration, which in 2023 gathered over 30,000 attendees from over 80 countries, almost all women, at all stages in Computer Science studies and careers, providing an invaluable opportunity for women to find inspiration, networking, and strategies to thrive in their careers.

In Europe, we find examples of EU public-funded projects such as EQUAL-IST, Women4IT, and pan-European networks such as the Informatics Europe's Women in Informatics Research and Education Working Group and the ACM-WE Committee (both more oriented to women in the academic career); the CEPIS Women in ICT Task Force and the European Centre for Women and Technology (both more oriented to women in the ICT profession). Nevertheless, several commendable projects, internal policies, and strategies are found in many Universities, funded by national mechanisms, specifically to increase the number and retention of female students in Computer Science programs. Here are a few good examples:

- The Bamberg CS30 Strategy [21], Faculty of Information Systems and Applied Computer Sciences, University of Bamberg, Germany—Started in 2005 and aims at reaching a female/male ratio of at least 30% across all Computer Science programs. The number of women enrolling in first-year Computer Science studies has been increasing since 2013 and reached 37% in 2017, establishing a new record in Germany.
- The Girl Project Ada [20, 22], Faculty of Information Technology and Electrical Engineering, NTNU, Norway—Started in 1997 and aims at recruiting more girls to the ICT studies and prevent dropouts. The female share of entrants in ICT studies has, on average across different programs, almost doubled, going over 25% in the Computer Science program in 2017.

- CS4All initiative, School of Computer Science, TU Dublin, Ireland—Started in 2012 and aims at increasing the number of female students coming to Computer Science undergraduate programs and reduce the numbers failing to progress in the critical first year. The female share of enrolled students in a new Computer Science Bachelor Program, with a strong emphasis on Internationalisation and Globalisation (22%) is double the one of the standard Computer Science in the same period. Retention has been strongly improved, particularly for first-year students with an average 89% progression from year 1 to year 2 (the most critical), now the highest progression rate for Computer Science in Ireland.

Projects, internal policy, and strategy management for supporting the transition of female Ph.D. and Postdoctoral Researchers into Faculty positions and for developing the careers of female Faculty in Informatics Departments are also found across Europe, but the impact has been less significant, and the numbers of female researchers and professors, in general, remain discouragingly low.

Here are a few institutions that have implemented beneficial internal strategies and policies to increase the number of female researchers and faculty and support their careers:

- Faculty of Informatics TU Vienna, Austria
- School of Computer Science, TU Dublin, Ireland
- Department of Computer Science and Information Systems, University of Limerick, Ireland
- Institute for Computing and Information Sciences, Radboud University in Nijmegen, the Netherlands
- Faculty of Information Technology and Electrical Engineering, NTNU, Norway
- School of Electronics, Electrical Engineering & Computer Science, Queen's University Belfast, UK
- Department of Computer Science, University College of London, UK
- School of Informatics, University of Edinburgh, UK
- Department of Computer Science, University of Sheffield, UK
- Faculty of Mathematics and Computer Science, University of Bremen, Germany
- Department of Informatics, TU Munich, Germany
- Department of Informatics, University of Lille, France (initiative 1 and 2)
- Grenoble INP, University Grenoble Alpes, France

Many more Universities have individual projects or fellowships (involving directly or indirectly Informatics Departments) aiming at improving gender balance. A few bold examples, involving substantial funding, include the Irène Curie Fellowship at TU Eindhoven, the Gender Initiative for Excellence at Chalmers University of Technology, and the IDUN project at NTNU. Some National Informatics Associations and National Research Labs also have special interest groups, or Equal Opportunities offices with a focus on gender balance, to cite a few: Gesellschaft für Informatik in Germany, IPN (ICT Research Platform Netherlands), Société Informatique de France Inria, Max Planck Institute for Informatics.

Moreover, over the course of EUGAIN, we have supported the Minerva Awards within Informatics Europe. The Minerva award has been successfully presented for 9 years in a row, usually at the European Computer Science Summit (ECSS). The EUGAIN main event has been co-located with ECSS for three times and EUGAIN central persons have chaired and participated in the Minerva award committee. The Minerva award is sponsored by Google and represents a successful example of cooperation between academia and industry for the achievement of the goals. Examples of industry based interventions include the ODA Awards (Norway), the Europe's Top 50 Women In Tech, the Microsoft Power Women in Tech Award.

2.4   The Aims of EUGAIN

The overarching **challenge** of EUGAIN is to enhance the representation of women in the field of Informatics at various educational and professional levels. This involves strategies such as increasing the number of female students opting for Informatics in higher education, fostering an environment that ensures the retention and successful completion of studies by female students, and encouraging the participation of women in advanced academic roles, including Ph.D. and postdoctoral research positions. Additionally, the focus extends to supporting and inspiring young women in their careers, addressing key obstacles that hinder their progress toward senior positions within the field. To achieve these objectives, collaboration with network partners representing 40 countries is essential, leveraging their experiences to overcome challenges and implement effective measures across diverse institutions and countries, leading to sustained positive outcomes in the long run.

The main **research questions** investigate actions, policies, measurable results, geographical perspective, relation to industry, relation to school, intersectionality, and role of male colleagues. Table 2.1 provides research questions that were used when setting up investigations in this field of gender and computer science within EUGAIN.

The **objectives** of EUGAIN are divided into two main categories: Research Coordination Objectives (Table 2.2) and Capacity-building Objectives (Table 2.3).

2.5   Implementation Through the Working Groups

To ensure progress beyond the state of the art and encourage novel approaches and methods, three Working Groups (WGs) addressing the challenges of each transition: from School to University (WG1); from Bachelor/Master studies to Ph.D (WG2); from Ph.D./Postdoc to Professor (WG3) have been established, combining experts and perspectives from different institutions and COST countries. Two additional WGs, on Cooperation with Industry and Society (WG4), and Strategy and Dissemination (WG5) support and promote outreach of the activities and outcomes.

Table 2.1 Research questions used as starting point for investigations

Questions
How successful have the implemented actions and policies been? How can their impact be measured?
How much effort (people and time) and funding has been spent on projects that have had measurable and successful results?
How visible were these actions at the university, regional, national or international level?
How to replicate successful actions and policies in different institutions or countries?
How many countries have pre-established national networks with a focus on gender balance in Informatics/ICT? Have these networks had a positive impact on results and outcomes?
What is the proportion of Informatics Departments across Europe that have never implemented any measure or policy to improve gender balance?
Has the industry been involved in these efforts? Has this type of collaboration influenced positively the results? If not, how to foster more effective and successful partnerships?
Have male colleagues been leading or actively participating in the projects and actions, or does this remain primarily a women's problem? What has been different in cases with significant male engagement? Would the participation of more men (particularly in leading positions) have a positive impact on progress and results?
Why do some countries have better female participation in Informatics (studies or profession)? Why are they a minority? Are there cultural, historical, or economic reasons for this?
Are there Departments (or countries) that have policies for improving more general diversity and include other minorities?
Has the lack of Informatics as a foundational discipline in schools played an important role in the low numbers of female students in Informatics higher education?

Other dissemination and communication activities ensure reaching all interested stakeholders. Moreover, tangible deliverables will also promote the advancement of the state of the art (Table 2.4).

The main goals and activities of the different working groups are described below.

2.5.1   WG1: From School to University

The main objective of WG1 was to update and design a new set of measures on how to promote the education and participation of more female students in Informatics higher education. Moreover, it aimed to increase the number of applications and to ensure that students who started will thrive, make their voices heard, and complete their studies. In terms of tasks and activities, WG1 focused on collecting and evaluating current initiatives existing in the COST countries and institutions part of the Action, including targeted recruitment initiatives, activities for students (from primary to high school), mentoring and career programmes in academia and industry. It also collated examples of how female students voice can be encouraged across universities in generating information and ideas.

Table 2.2 Research coordination objectives

Research coordination objectives
Coordinate information gathering and collection of practices and initiatives for recruiting and retaining female students, researchers, and professors;
Support partners in assessing and evaluating existing practices and methodologies, facilitating the choice of what could be implemented according to the local situation (cultures, resources, etc.);
Coordinate data from across each WG to assist in the development of cross-validated instruments to help Informatics Departments set goals and priorities for female recruiting, integration, and promotion;
Collate collaboratively a handbook of interventions and web-based resources across all WGs for practical use by the academic community and stakeholders;
Deliver guidance and recommendations on how to overcome the challenges in a comprehensive policy document targeting policymakers and other relevant stakeholders at the national and the EU level;
Create visibility, both within the academic community and to other stakeholders, about the common issues and challenges facing the academic community, and local, national, and EU authorities in addressing gender balance in Informatics;
Create a communications strategy to spread information about the actions and results to the general public and stakeholders, using a website created for the project, social media channels, newsletters, and press releases;
Develop a common European understanding around the issues of female participation in Informatics, policy priorities, and areas of intervention; Involve industry stakeholders in the efforts to address the main challenges and create opportunities and synergies;
Develop and publish an Action website to become the reference point for addressing gender balance in Informatics, including an online repository of the evidence collected by the WGs, information about the networking activities organized, and channels for dissemination and communication.

2.5.2 WG2: From Bachelor/Master Studies to Ph.D

WG2 aimed to design a new set of measures on how to promote the participation of more female students in Ph.D. programs in Informatics and ensure that students who started will complete their Ph.D. studies. The main tasks of WG2 were to: (1) collect and assess cross-national action plans/guidelines (national or regional) to inform about research activities and role models in research and education; (2) collate current interventions/tools to inform about actions both in general terms and specifically regarding gender and diversity issues; (3) collate examples of how female Ph.D. student voices' can be encouraged across universities in generating innovative research projects and ideas and (4) gather evidence on their effectiveness across different groups and with regards to gender and age systematically reviewing completeness of the information, degree of usage, local evaluations carried out, and sustainability.

Table 2.3 Capacity building objectives

Capacity building objectives
Establish an efficient and lasting network of excellence to advance knowledge and methods to improve gender balance in Informatics;
Such a network shall encourage sustainable collaboration, and facilitate knowledge and experience sharing, with an emphasis on intervention best practices, through seminars, workshops, and short-term exchange visits, involving a comprehensive list of stakeholders;
Promote policy and intervention practices for recruiting and selection of female students, researchers, and professors, including guidelines for their monitoring and evaluation; disseminate the practices for further development by the wider academic community, fostering collaborative international projects;
Encourage publication (and support the drafting) of peer-reviewed papers, and presentations at important conferences and events, to create at an international level awareness of the gender gap in Informatics;
Increase awareness of the issues across disciplinary boundaries, both within and outside of academia, by promoting continued exchange and development of knowledge, practice, and policy guidance;
Cooperate with industry to foster career networks, creating mutually beneficial synergies, for students and early career researchers to find excellent career opportunities, and for the industry to tap into a pool of highly motivated talented individuals;
Act as a transnational platform facilitating multi-stakeholder engagement and co-creating processes and actions at local, national, European, and international levels.

Table 2.4 Deliverables

Main deliverables
A website (https://eugain.eu/);
a repository of initiatives and best practices;
booklets with practical recommendations (see Sect. 2.6.1);
a handbook with validated measures and guidelines helping university departments to recruit and retain female (students, PhD students, professors and researchers);
policy recommendation documents for local, national and international institutions;
publications, and presentations (see Sect. 2.6.2).

2.5.3   WG3: From Ph.D. to Professor

The main goal of WG3 was to identify successful practices to recruit more female professors in Informatics and to limit the dropout rate of women along the path to professorship and leader positions in academia. It aimed also to help to increase the proportion of women in international research projects. To reach this goal, WG3 focused on (1) collecting experiences from ongoing initiatives in COST countries universities and assess evidence [24]; (2) identifying HR policies and recruitment strategies aimed at increasing female recruitment and retention within Departments, Institutes/Faculties/Schools, Universities; (3) designing protocols for collaboration between the management and the employees at the faculty, with a focus on gender equality; (4) designing career development programme for Ph.D.

students and postdoctoral researchers; (5) developing a mentor scheme for women at the master's level to associate professor level; (6) creating international mentoring schemes between women in scientific positions at different levels and in different COST countries and (7) developing a strategy for recruiting women in externally funded projects, especially for EU funding.

2.5.4 WG4: Cooperation with Industry and Society

The main objective of WG4 aimed to assure that cooperation with stakeholders in industry and other sectors exists at a local, regional, national and EU level and that particular issues existing in each country are taken into consideration. It aimed also to analyse the existing practices put in place for university departments, institutes/faculties/schools to deal with external cooperation with a focus on gender issues and evaluate what assessment exists for these practices. The main tasks and activities of WG4 focused on: (1) collate evidence of successful industry-university collaboration across partners and countries [15, 23]; (2) gather and assess evidence of best practices on how collaboration with industry and other sectors have had positive impact on gender balance in Informatics/ICT; (3) collate action plans/guidelines on integration from national and regional authorities for policy evaluation and (4) engage with the IT/ICT sector to improve the integration of gender balance in their research portfolio and recruitment strategy.

2.5.5 WG5: Strategy and Dissemination

The objectives of WG5 were to: (1) raise awareness about the gender imbalance and bias in Informatics; (2) advocate and lobby for change; (3) disseminate the action results to all partners and national networks and (4) reach out to all external stakeholders. To reach these objectives, the main task of WG5 was to assure that the main activities, events, outcomes and deliverables of all WGs have the best visibility and reach the relevant stakeholders. This is done through the organization of an Annual European Workshop on gender balance in Informatics/ICT (during the project duration and on the longer term annually, after the end of the project) and face to face meetings with relevant policy officers at the EU level and national level (involving then the partner(s) in their country). Finally, WG5 is in charge of organizing an European Award for best practices in departments/institutes/schools/-faculties of European universities and research labs that encourage and support the careers of women in Informatics research and education (selected by a review panel of international experts).

2.6   Results and Outputs

In this section, we reported the main results we got during these four years as booklets and scientific outputs.

2.6.1   Booklets and Other Deliverables

We produced four booklets, available for free on our website https://eugain.eu:

1. *Booklet "From Ph.D. to Professor"*: includes the best practices for supporting the transition of Ph.D. and postdoctoral researchers into faculty positions.
2. *Booklet "From School to University":* includes the best practices and suggestions for recruiting and retaining women students.
3. *Booklet(s) "Future Informatics Students":* includes advice and advantages of studying and choosing Informatics as a career.
4. *Booklet "From Bachelor/Master Studies to Ph.D.":* includes the best practices and suggestions for retaining and supporting the transition of women students to Ph.D. positions.

Moreover, we produced a *Policy recommendation document* that includes a set of policy recommendations directed to policymakers, at the national and European level and an *Handbook of intervention methods* that provides an understanding of the factors that contribute to increasing the recruitment and retention of women computer scientists, methods, and intervention strategies.

2.6.2   Scientific Output

Based on the results obtained in this project, we published more than 50 papers both in International and National journals, conferences, and workshops. The complete list of publications is available online.[1] Conferences include the International Conference of Software Engineering (ICSE), IEEE International Conference on Software Analysis, ACM Conference on Innovation and Technology in Computer Science Education, IEEE/ACM International Conference on Software Engineering: Software Engineering Education and Training, ACM Women Encourage. Journals and magazines include prestigious ones like Education and Information Technologies journal, IEEE Software, and *Journal of Systems and Software*.

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[1] https://eugain.eu/results/research-publications/.

2.7   Summary and Future Outlooks

By now we have understood the barriers and effective strategies towards improving gender balance in Informatics, summarized also within the booklets discussed in Sect. 2.6.1. EUGAIN has offered a platform for inspiration crossing cultural boundaries and for gathering insights on effective strategies towards addressing stereotypes, promoting role models, closing the confidence gap, growing a sense of belonging, and learning to give recognition and credit to all the talented women and other underrepresented talents in Informatics.

At the same time, we now understand the importance of continuing this essential work. We see the immense importance of a better understanding of cultural differences and their influences and strategies that give us a better ability to engage and recognize diverse talent, together with effective tools to guide women and girls throughout the maze of educational and career decisions in the growing world of Informatics and technology.

When starting EUGAIN, we began with an ambitious set of questions we intended to answer (see Table 2.1). Now, four years later, while we have shed light on all these questions, we find them far from answered. We have understood how hard it is to measure progress and how multifaceted the progress can be, moving us into technology that is inclusive for everyone, not only women and girls.

Over the duration of EUGAIN, we have had the privilege to watch closely when the change was taking place in the institutions of our project members, which we have celebrated with the Minerva award and made sure to document as many of the efforts take time to bloom. As for now, we are excited that the seeds have been planted and will continue nourishing these ongoing activities in all our institutions. We hope our results and this book bring inspiration to the reader to do the same.

2.8   How You Use Our Results

All the deliverables of the EUGAIN project are and will continue to be available on our website https://eugain.eu—we encourage every reader of this book to download them and put them to use in their environment, whether in school, at university or at a company.

We picked the three personas from the preface of the book that seem most relevant to this chapter and actions that can be taken upon it. We encourage anyone affiliated with higher education to consider starting a similar networking action.

Kim, the university professor. Kim had a wonderful time with the EUGAIN network and made important connections across many countries. They decide to write a follow-up proposal with a subset of the members of EUGAIN.
Actions: They lead a group of people that they closely collaborated with during the Cost Action and that they feel they have common goals with and submit a second round Cost Action proposal to the European Union.

Bazyli, the industry manager. Bazyli was a visitor at the final EUGAIN conference and was very impressed with the results. They tool away the Deliverable 7 guidelines (described in detail in a later chapter in this book) and implement them at their company. They decide to join the proposal that Kim mentioned in that inspiring meeting.
Actions: Bazyli offers to host a series of workshops at their company and host one of the working group meetings for the envisioned future Cost Action. Their company is excited about the prospect of many highly qualified women coming to visit them.

Nicole, the activist. Nicole found out about EUGAIN on social media and are delighted about the hands-on guidance that the research outputs as well as the Deliverable 7 guidance provide. They decide to reach out to various members of the project.
Actions: Nicole invites them to join one of their campaigns for encouraging young women to look into Informatics as a possible future career.

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