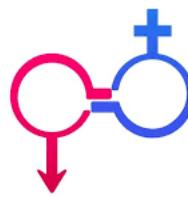


Tunisian Republic
Ministry of Higher Education and
and Scientific Research
Centre de Biotechnologie de Sfax



The Gender Equality Plan of the Centre of Biotechnology of Sfax



Horizon 2020 Project
“R&I PEERS - Pilot experiences for improving gender equality in research organizations”
(Grant Agreement number 788171)

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1. Presentation of the Centre of Biotechnology of Sfax | CBS

Biotechnology is becoming increasingly important in industrialized countries. This is mainly due to its importance in the fields of agriculture, food, environment and health. This only makes more urgent the need for developing countries, for which these areas are vital, to acquire the necessary means to master this technology. Tunisia has taken this step by implementing a Biotechnology Plan. This plan was materialised, inter alia, by the creation of the Sfax Biotechnology Centre (CBS). CBS is the largest and most renowned research centre specialized in Biotechnology in Tunisia. It was created by decree no. 83-1037 of 4 November 1983, reorganizing the National Institute of Scientific and Technical Research. Since January 1989, the CBS has become an independent institution whose budget is attached to the State budget. In January 2010, the CBS went from an Administrative Public Institution «EPA» to a Scientific and Technological Public Institution «EPST». The CBS occupies a state-of-the-art new building of 16,000 m² including, the research laboratories, the specialized units, a Technology Transfer Office (TTO), a business incubator (1,000 m²), and a Technological Hall (TH). The missions entrusted to CBS are:

- To promote the research in the domain of bio- industries.
- To develop and adapt the techniques in this domain.
- To facilitate the access for the industrial sector to information of a technological nature.
- To provide to local industries the technical aid necessary to their development and to the promotion of new industries.
- To train and develop technical experts and highly qualified researchers; this objective is achieved by the organization of advanced courses, seminars, training courses and by the preparation of theses in collaboration with local university structures.
- To establish straight collaborations with the industrialized countries and in the process of development in order to develop biotechnologies.
- Carry out studies on behalf of private companies or organizations which may be national or international.

In order to carry out its R&D activities, the CBS is currently composed of 6 “LR” Research Laboratories, 4 “US” Specialized Units and a Scientific Information and Documentation Unit in accordance with the 2019-2022 Contract-Programme:

- Laboratory of Eukaryotic Molecular Biotechnology,
- Laboratory of Environmental Bioprocesses,
- Laboratory of Biotechnology and Plant Improvement,
- Laboratory Biopesticide
- Laboratory of Microbial Biotechnology and Enzyme Engineering
- Laboratory of Molecular and Cellular Screening Processes

- Specialized Unit: Valorisation of Research Results
- Specialized Unit: Technology Transfer
- Specialized Unit: Analytical Services Provider
- Specialized Unit: Quality, Safety, Environment and Accreditation
- Scientific Information and Documentation Unit

The CBS has a strong infrastructure with main high-tech equipment (Illumina MiSeq Sequencing System, automatic sequencer, LC/MS-MS, GC/MS, genomic and proteomic platforms, confocal microscope, flow cytometer, series of fermenters up to 1,000 liter, downstream processing units, etc...). About hardware, the CBS has been equipped by two computing servers with 24 cores, with 256 RAM and 20 Terabytes storage capacity. The IT platform encompasses an extensible infrastructure capable of hosting multiple compute nodes and designed on the basis of a data-oriented architecture. The current CBS IT infrastructure need to be arranged to provide the necessary workflow to the dataset analyses with a maximum of flexibility. The CBS activities are currently carried out by a staff of almost 128 people, including 49 researchers, 49 engineers and technicians, 12 administrative staff, and 18 workers. CBS develops cutting edge research in all fields of biotechnology: industrial, environmental, plant, health, food biotechnology and bioinformatics. CBS conducts research aiming to use Tunisian natural resources, plants and seaweed in many areas, including the production of biopesticides, health products and food additives. CBS is a leader in the screening, studying, producing and application of several genes and clusters with industrial interest, as those encoding enzymes, biopesticides, antibiotics, antifungal etc... In addition, research topics addressed in the development of bio-processes for wastes and wastewater treatments, Biogas and bio-remediation of contaminated sites are conducted to implement biological systems (bacteria, fungi, micro-algae; enzymes) with high biotechnological potentialities, for treatment and valorization of the by-products and the agro-industrial residues. Moreover, as a Tunisian leader in the implementation of NGS in the field of research and clinical diagnosis, different Tagged NGS approaches have been employed during the last four years in CBS. It has experience in utilization of commercial NGS panels developed by different companies as well as in panel customization. Through the use of PCR-based or hybridization-based enrichment strategies, we had focused our molecular analysis on some inherited disorders: hearing loss, neurologic disorders, genetics syndromes and cancer predisposition. According to the report written by Emmanuel Hassan in the framework of the project PASRI, CBS is one of the three Tunisian institutions that have published the most pertinent and highly cited works. CBS has a wide experience in international and European research projects: FP6 (4), FP7 (6) and H2020 (2). During the period 2011-2014, CBS has successfully coordinated an ERA-WIDE action supported and funded under the 7th Framework programme (FP7) by the European Commission, the BioProtech. CBS co-coordinated with INSA-Toulouse the IPM-4-Citrus, a H2020 – RISE project 2017-2021. During the last 5 years he participated/co-coordinated/coordinated 37 projects, and published more than 600 articles with Impact factor and more than 70 patents.

CBS has obtained several national awards: Presidential award for the best laboratory (2018), Presidential award of best researcher (2017), presidential award of first centre in producing patents (2015), innovative project 2015- Univenture competition, innovative project 2014-PASRI-API competition, and Valorisation of Biotechnological Projects at Sfax University Competition for 2012, 2013, and 2015, and other national distinctions. At international level, the CBS has won 4 awards such as the Award of the French Magazine "La Recherche" Field « Environment » 2006; Best Star-up Prize, L'Oréal (2013), L'Oréal, UNESCO 2016 women's, German price for the African researcher (2019). Nowadays, quality, safety and environmental approaches are emerging as effective and strategic management tools to face customer requirements, competition, and increasingly pressing regulatory requirements. In this frame, and since 2015, the CBS was committed to setting up a quality management system according to the standard ISO 9001:2015 (Quality management systems). For this purpose, a committee has been created. It includes representatives of the administration and the various research and support structures. The committee worked for two years to have the centre certified in 2017 by AFAQ AFNOR International, for research and development and valorization of Research Results and Technology Transfer activities in Biotechnology. In the two years following certification, two third-party audits were successfully conducted. Furthermore, in order to ensure continuous improvement of its products and services and thus guarantee more and more the satisfaction of its customers and stakeholders, the CBS engages itself in a global improvement approach. Thanks to a financial support (PAQ-CR2S project) from the Tunisian ministry of higher education and scientific research, CBS obtained in December 2021 the integrated system QSE (quality-safety-environment) according to the standards ISO 45001:2018 (Occupational health and safety management systems) and 14001:2015 (Environmental management systems) by VERITAS. For all these considerations cited above, CBS merited and was considered by the Third World Academy of Sciences (TWAS), Agence Universitaire de la Francophonie (AUF), and the Tunisian Comity for Research Activity Assessment (CNEAR) as a centre of Excellence.

1. Context analysis from a gender perspective

2.1.The National Context

Tunisia has always been considered as one of the most advanced Arab countries in terms of women's rights thanks to a family code promulgated in 1956, followed by the amendment of the labour codes, the penal code and nationality; these legal regulations have strengthened the rights of women in Tunisia. In the pre-independence period (-1956), the reform movement in Tunisia has raised the issue of women's empowerment, particularly through education. Women's organization have emerged, and debates on women's position in the society developed. Women had important role in the liberation struggle and became involved in political actions. The post-independence period (since 1956) was marked by the establishment of the foundations of the modern state and the construction of modern society. In this period, significant efforts were placed in order to improve women's position. The publication of the Personal Status Code (August 13, 1956) represents the culmination of the legal reform movement. It guaranteed the fundamental rights of women and regulated organization of relations within the family. The June

1959 constitution enshrines the principle of equality between women and men. A set of legislative acts that approve the civil and political rights of women (such as the right to vote, education and employment ...) inevitably followed. After January 14, 2011, the elaboration of the new Constitution confirmed the will of a fringe of the society to make access the woman to an equal status in democratic rights and freedoms, ensuring the foundations of human rights in Tunisia. There are several organizations and governmental bodies active in the field of gender equality in Tunisia. The Centre for Research, Studies, Documentation and Information on Women (CREDIF) was created in 1990. It is considered as the scientific body of the SEFF, whose mission is to encourage studies and research on the role and status of women in Tunisian society and collect data and documentation relating to the situation of women and ensure their dissemination and reporting on the evolution of the status of women in Tunisian society to inform decision-makers about strategies and action plans to implement to reduce gender gaps and achieve gender equality. Furthermore, 15 women assume the responsibilities of gender focal points in SEFF's ministerial partner departments. Effective interdepartmental collaboration is not yet institutionalized. Pilot experiments have been set up with the participation of 2-3 ministries, but they have had the duration of a program and are intended to conclude with a lack of capitalization. The Peer Council for Equal Opportunities is established in 2016 by Government Decree No. 626-2016. As advisory body, its main mission is to integrate the social gender approach into development policies and plans in Tunisia (planning, programming, evaluation and budgeting) with the aim of eradicating all forms of discrimination between women and men and achieve equality in rights and obligations. It is also empowered to give its opinion on bills relating to women's rights.

In spite of all legal regulations and efforts of governmental bodies, changes in women's rights in terms of access to education and maternal health have not translated into more meaningful integration of women into economic and political activities. International indices clearly show this gap. The major inequities that are revealed in international reports concern the presence in Parliament and the occupation of ministerial positions. The institutional mechanisms for gender mainstreaming that have been implemented since the 1990s to institutionalize the gender issue are relatively weak in terms of mandate and human and financial resources. It is also important to underline the limited coordination between state parties and civil society which, coupled with the absence of a mapping of intervention priorities by region, locality and sector, does not favour a targeted intervention with a global and strategic vision to act effectively against inequalities. Throughout this panorama, there is reason to recognise the emerging initiatives of coordination, networking and the search for synergies on the gender issue, such as: the UNFPA and UN-Women informal gender group, and Coalition for Women of Tunisia, launched in 2012, which brings together nearly 30 women's rights NGOs as well as a more specific Gender, Agriculture and Rural Development group initiated by FAO-Tunisia, UNDP and Canada at the service of socio-economic inclusion and the empowerment of vulnerable women in Tunisia, launched in 2022 and the new national program for gender-sensitive women entrepreneurship "Raidat", launched in the International Women's Day, on March 8, 2022.

2.2 The institutional context

Referring to 2022 statistics, 128 staff /employees are the total workforce of the Centre of Biotechnology of Sfax (CBS):

- The gender distribution shows a predominance of women; indeed, repartition is as follow: 67 are female (52%) and 61 are male (48%)
- The top management distribution is unbalanced where 67% are male and only 33% are Female
- The distribution of staff per level for grade and per gender is predominantly male for the Professor/Associate Professor grade, 17 are male (74%) and 6 are female (26%) and is predominantly female for assistant professor level with 17 female (68%) and 8 male (32%).
- On the other hand, the distribution is almost balanced for engineers and Technical staff: 25 are female (51%) vs 24 male (49%).
- This distribution is unbalanced for the administrative staff and workers where 63% are female and only 37% are male.

3. Overall objectives of CBS Gender Equality Plan

The CBS Gender Equality Plan (GEP) was developed through the commitments with European projects under the Horizon 2020 - Horizon Europe. The European project' participation allows us to measure the importance of integration sex/gender dimension into Research and innovation target at creating and be conscious about the rules that limit the participation and the career of women in research and innovation. The Gender Equality Plan (GEP) is a fundamental action of the any submitted European project and a key tool for encouraging the improvement of gender balance in the organization. Thanks to our engagement to implement GEP, we identified the areas of intervention to be addressed in CBS Gender Equality Plan, which reflects the needs and requirements of the actors involved through SMART (Specific, Measurable, Attainable, Realistic, Time-related) objectives. The CBS Gender Equality Plan is based on nine objectives, which will be achieved through specific activities, whose effectiveness will be monitored using particular indicators. These nine objectives are:

- Integration of the gender dimension into research and teaching content
- Work-life balance and organizational culture
- Gender equality in recruitment and career progression
- Gender balance in leadership and decision-making

- Measures against gender-based violence including sexual harassment
- Measures mitigating the effect of COVID-19
- Training : awareness-raising and capacity building
- Gender-sensitive research funding procedures
- Gender Equality Plan development and implementation

4. The Structure of CBS Gender Equality Plan

The CBS Gender Equality Plan intercepts the specificities of the Center and responds to them through appropriate methods, respecting the differences and diversities that make each context unique. As mentioned, the Gender Equality Plan is structured into 9 target areas, the GEP provides for a set of 13 strategic actions whose actual implementation, within a specific time frame, will be monitored in progress by indicators and will be subjected to external evaluation by the members of the international Advisory Board, appointed by the European Commission. The current GEP update version reflects modifications made after the actions planned; it is consistent with the European Commission format and definition of a GEP.

The CBS GEP adheres to the EC format and has been shaped on the guidelines proposed by EIGE (<https://eige.europa.eu/gender-mainstreaming/toolkits>).

The formal adoption of the CBS's GEP, signed by the Director General of the CBS, dates back to 1 st March 2019.

Key area 1	Key area 2	Key area 3	Key area 4	Key area 5	Key area 6	Key area 7	Key area 8	Key area 9
Integration of the gender dimension into research and teaching content	Work-life balance and organisational culture	Gender equality in recruitment and career progression	Gender balance in leadership and decision-making	Measures against gender-based violence including sexual harassment	Measures mitigating the effect of COVID-19	Training: awareness-raising and capacity building	Gender-sensitive research funding procedures	Gender Equality Plan development and implementation
4 actions	3 actions	1 action	2 action	1 action	1 action	1 action	1 action	1 action

CBS Gender Equality Plan

Key area	Actions	Start of the action	Description of the action	Indicators	Threshold of the indicator	Person in Charge + role in CBS	Start date	End date
1-Integration of the gender dimension into research and innovation	Action 1.1: Regular trainings for researchers	Planned	Regular (annual) trainings for researchers would secure sustainability of the measures and on the long run reduce resistance on researcher's side and raise their awareness of the need of continuous acquiring of new mentoring skills and competence development. It's to favour a widespread gender competence at all levels of the organization with provision of mentoring	01 training per year will be organized involving all CBS staff on Gender dimension		Pr. Slim Tounsi: CBS General Director	2023	

			training to Senior staff.					
	Action 1.2: Organisation and participation in events on relevance of gender dimension in Research area	Done	This action is contributing to raising awareness of importance of GE dimension among R&I stakeholders	Participation of Pr Slim Tounsi and Pr Bassem Jaouadi in 02 events related to GEP dimension *	Very satisfactory	Pr. Slim Tounsi: CBS General Director	2022	
		Planned		Participation of CBS Women research staff in international Woman Day		Pr. Slim Tounsi: CBS General Director	2023	
	Action 1.3: Encouraging participation of Women in Science Excellence Prize (Award)	Done	This measure directly contributes to better visibility of research and achievements done by women and raising general societal awareness of women contribution to science in the national and regional historical perspective	Participation of Dr Basma Hadj Kacem who has been awarded for the first prize in the inventor category in TUNISIA TICAD INNOVATION-2022 TICAD 8**	Very satisfactory	TICAD board of examiners	2022	
	Action 1.4 : Establishing a social media	Running	This action directly contributes to	Facebook Group launched "Success Stories	Very satisfactory	Mrs Nadia Marrakchi : Chief of	2020	

	channel/a brochure/a series of podcasts... promoting achievements of female Tunisian researchers		better visibility of research and achievements done by women	of Tunisian Females in Research & Innovation”:		Information and Documentation Unit		
2-Work-life balance and organizational culture	Action 2.1: Establishing a committee for equal opportunities	Done	This measure would assure continuous and sustainable addressing of issues related to gender equality in CBS. It would also serve as a mediator between employees and Top management in matters related to equal opportunities and contribute to raising awareness of importance of GE and equal treatment.	Committee for equal opportunities established	Very satisfactory	Pr. Slim Tounsi: CBS General Director	2022	
	Action 2.2: Encouraging participation	Done	Create educational paths for	Successful Participations of :	Very satisfactory	Technoriat	2021	

	of Women in entrepreneurial actions (Award)		entrepreneurial careers of women Establish gender-sensitive entrepreneurship training for erlu resercher career, and start-up supporters. Participating to the programme providing women with both the hard and soft skills necessary to start their own business or enter the labour market.	-Dr Imen Zouari and Dr Mouna Belhoul to Technoriat competition - Dr Azza Haj Sassi and Dr Rania Abdelmaksoud to PAQ –PAES program (spin off creation)		board of examiners -Ministry of Higher Education and Scientific Research		
	Action 2.3: Training for improving Women carreer	Planned/Running	Strategic development Sensibilization and increase awareness on promoting women career	Training on strategic development and entrepreneurial culture for all CBS staffs particularly Woman		Pr Mohamed Chamkha: CBS PAQ- Collabora Project Coordinator	October 2022	
3-Gender equality in recruitment and career progression	Action3.1: Yearly statistic indicators of career paths of employees	Done	Regular collection of statistical indicators provides evidence-grounded basis	Disaggregated statistics realised yearly	Very satisfactory	CBS Scientific Council	2020	

			for raising awareness of gender equality within CBS and helps preventing widening of the gender gap. This strategy would contribute to Integrate the gender dimension into the CBS culture work and to apply it in daily process. Analysis of these data in a dedicated Report so as to monitor gender and diversity state of art in CBS.					
4-Gender balance in leadership and decision-making	Action 4.1 Encourage women to be leaders of CBS laboratories and Units	Done	This strategy would assure sustainable maintenance of balance in decision-making bodies, raise awareness of biases in decision making practices and foster	Among the 11 research structures, 5 of them are led by Woman	Very satisfactory	CBS Scientific Council	2019	
	Action 4.2 Encourage women to be leaders in	Done		Among the 31 CBS R&D projects 15 of them are	Very satisfactory	CBS Scientific council	2021	

	research Projects		competence development.	led by Woman (48.39%)				
5-Measures against gender-based violence including sexual harassment	Action 5:1 Establishing channels to report anonymously disrespectful behavior, abuse and sexual harassment	Planned	Create a survey listing the recommendations, among which is revising the charter and the code for researchers so that they address gender-based violence (in accordance with the Human Resources Excellence in Research Award). The questionnaire will be used to collect data from staff and students on prevalence, determinants and consequences of gender-based violence in universities and research organisations.	Disaggregated statistics reports -A listening and coaching cell		-Pr. Slim Tounsi: CBS Director General -Mrs Hourria Souissi: Human resources staff	2023	
6-Measures mitigating the	Action6:1 Improving	Done	Implementing new ways of	Activate the performance of	Very	-Pr. Slim Tounsi: CBS	2020	

<p>effect of COVID-19</p>	<p>working policies and condition to make them sensitive to in accordance with the pandemic COVID-19</p>		<p>working, including online management and collaboration, that require alertness to evolving patterns of inclusion and exclusion;</p>	<p>the two existing committees (Safety and Health and Environment), by integrating two woman, one in charge of safety in laboratories and another coordinating medical visits and also by respecting teammate gender equity list(50%) in emergency situations</p>	<p>satisfactory</p>	<p>Director General Mr Fathi Aloui: Head of CBS QSE-accreditation unit Hekma Ayadi: Co-leader of CBS QSE-accreditation</p>		
<p>7-Training: awareness-raising and capacity building</p>	<p>Action7:1 generate and stimulate sensitivity to issues related to gender (in)equality, while (gender) capacity building aims to strengthen</p>	<p>Done</p>	<p>Engage the whole organization, including different levels and roles across the organization, such as senior management and leadership, managers, research and</p>	<p>Validation and signature of chart policies from the staff's organization</p>	<p>Read and approved by all CBS staff</p>	<p>Pr. Slim Tounsi: CBS General Director</p>	<p>2022</p>	

	people's knowledge and skills to engage with gender equality issues		human resources departments and students. By creating an ongoing and long-term process.					
8-Gender-sensitive research funding procedures	Action8 :1 Fostering partnerships for effective gender equality programming	Done/Running	Encouraging coaching and participation to the writing proposal for the European program Horizon2020	15 females obtained funds for R&D projects under H2020, PRIMA, ENI CBC Med, bilateral international cooperation and other national programs.	Very Satisfactory	Pr. Slim Tounsi: CBS General Director	2020	
9- Gender Equality Plan development and implementation	Action9:1 Developing structures to support gender equality work	Planned	Support and official commitment of senior leaders	Set-up measures for integration and adopting the sex /gender dimension into research		CBS Scientific Council	2023	

- 1- A seminar on Gender equality in the Tunisian R&D&I system « L'égalité genre à l'épreuve des défis de l'écosystème de R&I : Le PLAN EGALITÉ GENRE de l'Agence Nationale de la Promotion de la Recherche scientifique » Jeudi 30 Juin 2022, à l'Espace culturel du Ministère de l'Enseignement Supérieur et de la Recherche Scientifique. 2-Workshop on Gender dimension « Les bonnes pratiques de la communication inclusive, au regard des considérations de la dimension genre 30 Août 2022 Espace culturel - MESRS, Av. Mohamed V, Tunis.
- **8th TICAD : Tokyo International Conference on African Development, August 27th – 28th 2022 Tunisia.

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