EU GUIDELINES FOR GENDER-RESPONSIVE BUSINESS & INNOVATION

How to gain ground in business by acting gender RESPONSIVELY in innovation and marketing
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EU GUIDELINES FOR GENDER-RESPONSIVE BUSINESS & INNOVATION

*How to gain ground in business by acting gender-responsively in innovation and marketing*
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FOREWORD

These EU Guidelines for Gender Responsive Business and Innovation: How to gain ground in business by acting gender-responsibly in innovation and marketing are a toolkit produced within the context of the COST policy driven network Gender, Science, Technology and Environment, genderSTE. genderSTE is a multi stakeholder policy-driven platform involving researchers and decision makers from 40 countries committed to promoting a better consideration of gender dimensions in research, technology and industry, as well as a fairer representation of women and men in scientific and engineering fields. genderSTE is funded by COST, the European Program for Cooperation in Science and Technology.

In its Horizon 2020 Research Framework Program, the EU promotes gender know-how as a prerequisite for excellence in research and innovation. Integrating gender considerations in industrial processes is important because, as the US-EC Gendered Innovations Project states:

“Design that takes gender into account from the beginning can lead to new perspectives, markets and products. Research shows that men and women interact with technology in different ways. Our view is that if the original platform takes gender issues into account design will be better. Certainly, companies will save money (from attempting to fix iterations) and may innovate in new and exciting ways.” [http://genderedinnovations.stanford.edu]

50% of the users of innovative technology are women - in some fields even more. Women are not only half of the population and they have increasing economic power; they are also the ones making buying decisions for the whole family unit in an increasingly greater proportion.

A whole new area of needs for products specifically designed taking into account the needs of women as users arise additionally as a consequence of the increasing life expectancy of the population. This increasingly aging population and those caring for them are female, and their incomes tend to be both limited and fixed. The specific need for relatively low priced products addressing individuals mostly female, with reduced physical and / or mental capacities, who will need these products and services to support daily living situations, is without doubt a new niche for designers and businesses to think about, in which gender has to be taken into account throughout the innovation process. Are the requirements of these users embedded into businesses’ research and innovation?

There is a need to go beyond stereotypical feminization of products – so called “pinning” – as female preferences can be drivers for substantial innovation. If research institutions and industry want to create valuable and sustainable research results and technologies for people (the market), it is recommended to include women at all stages of the research and innovation process in order to keep a strong focus on the development
of technology with meaning and innovation that implies real life benefits for most users. This guidelines aim at providing decision makers and managers in the areas of innovation, design, research & development, marketing & sales, with easy to use tools that give them tips, processes and examples on how to better integrate gender needs and preferences into their work. They represent the output of a series of workshops held around Europe from 2013 to 2016, in which gender experts worked together with industry decision makers and managers.

This joint work was complemented by several Short Term Scientific Missions in which the ten case studies showcased were researched, analyzed, and given a common format useful for managers and decision makers. A number of the case studies presented in this toolkit focus on the specific needs, priorities and preferences of women and how these can be integrated into design, innovation and marketing processes.

The other two toolkits produced by genderSTE address issues of participation in RTD organizations. The first one deals with how to promote structural change in institutions: Cultural and Institutional Change Guidelines. Strategies and Recommendations. The second one focuses on a specific important aspect of structural change, that is, how to address gender bias in scientific and technological organizations. It is titled A Practical Guide to Address Gender Bias in Academia and Research.

We hope this collection of guidelines will be useful to researchers, engineers and decision makers wishing to address gender concerns in public and private universities, research centres and corporations.

Inés Sánchez de Madariaga
Chair, genderSTE
UNESCO Chair on Gender Equality Policies in Science, Technology and Innovation
Universidad Politécnica de Madrid
Better education, higher income, and more influence in households, businesses and society translates to emerging buying power of women. The so-called womenomics business trend is strong, global – and not yet discovered or addressed adequately by many companies. As technology is predominantly developed by men, gender knowledge and a focus on female preferences in relation to tech-innovation and development of new products and services is mandatory – it is a prerequisite for excellence in innovation and business.

Men and women’s approach to technology and their everyday needs tend to differ. While women tend to be more interested in the (social) benefits of technology and swiftness in use, many men will focus on tech-performance and advanced features. Also physical needs and life patterns can differ between men and women, which can influence which products and services they favour.

The above makes women valuable participants in innovation environments and projects, as they will represent the mindset, preferences, and every day needs of 50% of the market.

Representatives from companies like Bang & Olufsen, Hitachi, Toyota, Gigaset, Bosch have contributed to make the guidelines target real challenges and potential in different industries and regions. The results are based on the 4 years collaboration in the
Industry Task Force of the Gender STE network. The toolbox represents the available know-how about how to address and translate gender know-how in different functions of a company: from management to innovation and communication.

Along with these guidelines the Innovation in Industry Task Force of the COST Gender STE program has compiled a number of case studies that illustrate how gender know-how has advanced innovation and business in different industries.

We look forward to the impact this gender & innovation toolbox of guidelines and cases can create for your business and for the users of your products and services.

Klaus Schroeder
Strategic innovation director
Leader of Innovation in Industry Task Force

LIST OF EXPERTS:

The below experts have contributed to the toolbox and they can be used as a resource to help you exploit the gender potentials within your business.

Lut Mergaert (Yellow Window)
- product design, service design, policy design
- www.yellowwindow.com
- LinkedIn: https://goo.gl/8IGhLv

Klaus Schroeder (design-people)
- digital experiences/IoT, product & service design
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Inés Sánchez de Madariaga (UPM)
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Part One

HOW TO GAIN GROUND BY **ACTING GENDER-RESPONSIBLY IN INNOVATION AND MARKETING**
EU GUIDELINES FOR GENDER-RESPONSIVE BUSINESS & INNOVATION
How to gain ground in business by acting gender-responsively in innovation and marketing

1. CEO (Portfolio Manager)

STEP 1: GATHER INFORMATION AND INSIGHTS

MARKET POTENTIALS AND TREND DATA

- Analyse womenomics data (female buying power trend) in your business sector and identify potentials to expand the business beyond competition.

- Gather market and sales and use data with a gender split and consider new goals.

END CONSUMER EXPERIENCE

- Initiate a gendered brand and product review.

  “How do women and men perceive our brand, is there a bias?”

- First hand insights into female customer experience.

  “How do women and men experience our products, is there a bias?”

  “How do men and women differ in the way they use the products?”

COMPANY CULTURE

- Analyse your corporate values, culture and recruitment from a gender perspective. “Is there any bias?”

- Involve experts for an analysis.

ROLE AND RESPONSIBILITIES

- Shape the vision and show the way
- Secure the success and growth of the company
- Develop and implement high-level business development strategies
- Make major corporate decisions – also on product portfolio
- Frame and communicate company values and mission.
- Build workplace culture and motivate employees and/or managers
- Outline a recruitment strategy
STEP 2: TAKE ACTION

• Find and promote internal ambassadors (both sexes), who envision gender & diversity potentials, and who are willing to take action and inspire other parts of the organization.

• Lead internal communication about gender issues – promote gender & business success stories to inspire your organisation – consider a corporate manifesto and/or a female benchmark user/persona.

• Set ambitious goals for gender split of your sales and/or use KPIs

• Draw up a diversity and inclusion strategy and set diversity goals for recruitment, retention and career progression
2. INNOVATION MANAGER

STEP 1: GATHER INFORMATION AND INSIGHTS

- Make sure that Womenomics (the growing buying power and influence of women) is incorporated into your map of trends and responded to in your innovations.

- Benchmark current and future trends influencing women and men.

- Look into available data broken down by sex, while also considering other variables, such as age, education level, marital status, etc.

- Make innovation respond to societal needs through technology. Do not forget that society is heterogeneous – both women and men are part of it. Therefore, identify both their needs, and use that knowledge to come up with innovative ideas.

- Get inspiration from case studies. This will help you in the innovation work and will also be useful when motivating your colleagues.

- Make sure you can document the effects of gender-responsive business and innovation.

ROLE AND RESPONSIBILITIES

- Monitor trends
- Envision concepts for the future
- Respond to external or internal opportunities
- Introduce new ideas, processes and products
- Ensuring successful implementation
STEP 2: TAKE ACTION

- Ensure support and start with a meeting with your CEO/board – create ownership.

- Take the experiences of women and men into consideration throughout the innovation process. Conduct real life user studies and test concepts with both women and men.

- Involving prospective users will give you precious insights throughout all innovation phases and it will keep you anchored in the needs of the end-users.

- Ensure that you have a balanced representation of female and male team members, e.g. through HR-policies. This will enhance creativity and brings diverse perspectives into the innovation process.

- Encourage and reward women in your team for presenting their perspective from female users’ point of view.

- Avoid stereotypical messages when commercialising your product or service. Work together with your communications team. This will allow you to target a wider audience – with real impact on sales.

- Point out the benefits of your innovation for both women and men. You can do this by using the insights gathered throughout the innovation process.
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3. RESEARCH & DEVELOPMENT / DESIGN MANAGER

ROLE AND RESPONSIBILITIES

- Develop new technologies, products and services
- Transform new technologies and market requirements into successful products and services
- Lead the team through all steps of researching, inventing, designing and implementing while securing the overall strategy of the company is met

STEP 1: GATHER INFORMATION AND INSIGHTS

- Learn from successful business- and development cases that respond to gender dynamics – and from failures.
- Investigate whether male and female physiology are supported by your products
- Investigate whether your product supports different gender roles and norms, and different day-to-day routines
- Test and evaluate existing and future products with both male and female users
STEP 2: **TAKE ACTION**

- Translate trends and segmentation into validated personas for key user groups (male/female).

- Include both female and male users (if relevant) when researching and testing new concepts, products and services (ranked top 3 by 1 group).
- Gender diversify your team for improved performance and consumer understanding.

- Include user testing and involvement (of both male and a female users) in your innovation & development process (milestone/stage-gate model)

- Make customer experience briefs alongside technical specification briefs to guide development.

- Create benefit storytelling (around new features) for new products both from a male and a female consumer perspective.
4. BRAND/MARKETING & SALES MANAGER

**STEP 1: GATHER INFORMATION AND INSIGHTS**

- Conduct gendered Brand- and product experience research with real users and not-yet-users.

  “How do women and men perceive your promise and offering, is there an unwanted bias?”

- Use/conduct gender competent market research and segmentation.

- Analyse the Point-of-Sales experience with both male and female consumers

  “Did the product live up to your motives for buying?”

  “What did you miss? What can we do better? What disappointed you?”

  “Would the user recommend this product/service to others – if so, use it in your communication?”

**ROLE AND RESPONSIBILITIES**

- Plan, direct and implement go-to-market strategies
- Generate market insights & segmentation
- Define target groups
- Define product/service opportunities
- Develop communication, brief agencies
- Develop price strategy
- Position brand
STEP 2: TAKE ACTION

• Avoid stereotypical messages when communicating your product or service. Don’t just pink to reach the female target group.

• Gather representatives from Innovation, R&D & Marketing to develop and discuss how to communicate real life benefits to your target groups.

• Be aware of gender stereotypes in your marketing & communication – test with both women and men.

• Train the front staff to meet female & male customers competently. Do not talk down to women – they often make the (next) buying decision.
Case 1: DANFOSS LINK

Business development with a gender-responsive approach to tech design

THE CHALLENGE:

CONNECTING WITH WOMEN

How could this promising technology be improved?

Søren Hesseldahl, an innovation director at Danfoss, enrolled Danfoss Link as a case study in Female Interaction, a research project running from 2009-2012, conducted by the Danish design agency design-people.

The project’s purpose was to investigate the values, motivations, and needs of women in relation to technology products, and then translate that knowledge into innovative approaches to tech design.

When the Danfoss Link prototype was tested with women, their verdict was grave: it was much too technical, the motivational benefits too few, and the user interface overly complex.

The engineers at Danfoss had done their best. But the result didn’t connect with women.

ABOUT DANFOSS

Danfoss is a global leader in indoor climate solutions. Its team of talented engineers developed Danfoss Link, an intelligent, centrally controlled system to manage both ventilation and heating in the home.

FURTHER INFORMATION

In 2015, Danfoss Link received a nomination for The International Design Center Berlin’s UX Design Award, and in 2016 it received a special mention from the German Design Award.
INNOVATING WITH A FEMALE BENCHMARK

Luckily, the user research also showed what a more female-responsive indoor climate solution might look like. It would not only address temperature control, but also air quality. It would substitute wall-mounted control panels with discreet sensors. And it would be easily controlled and programmed with a smart phone. In short: an intuitive tool in a woman’s effort to care for her family and home.

Working together, Danfoss and design-people used these findings to develop a user-friendly mobile app to control the Danfoss Link system. The app was designed to simplify the life of users, e.g. by allowing them to control their heating system remotely to ensure their house would be comfortable and warm when they returned from holiday.

FROM FEATURES TO BENEFITS

The market feedback on the new app was even better than Danfoss expected, and the sales figures testify to the effectiveness of the design approach.

Today, inspired by Female Interaction, Hesseldahl’s division employs gender know-how to obtain user insights and test product concepts before technical implementation and design. For instance, the development department now focuses on real-life user benefits rather than tech features in creating new products.

And the results of the new approach don’t appeal to just women. “The focus on benefits turned out to improve the chance to get it right for all users – including men,” Hesseldahl explains. “I’ve never met a man who said, ‘I don’t like this product because it’s too easy for me to operate’.”
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Case 2: Q8 QVIK TO GO
Taking the lead with a female benchmark

In 2008, the Q8 stations throughout Denmark were facing not only the looming crisis but more fundamental trouble. The stations/kiosks of all petrol brands were boringly alike; messy, a bit worn, macho universes that didn’t appeal to the increasing number of affluent women on the road – and the male customers weren’t too excited either.

THE CHALLENGE:
A MODERN CONVENIENCE STORE FOR PEOPLE ON THE ROAD

After having a good look at the womenomics megatrend and finding that nobody else in the petrol business seemed to have noticed the female potential and the health wave holding hands to conquer all trades, marketing, and retail director Helle Dahlgren Skov initiated an ambitious plan. She wanted to take the Q8 brand from “a petrol station with a tired looking kiosk and a rather junky food offering” to “a modern convenience store for people on the road – where you can, by the way, fill your tank and have a quick car wash while you rest”.

Helle Dahlgren Skov and her Q8 colleagues had their work cut out for them. When the Q8 convenience project – fuelled by the new female benchmark – started, the whole idea of buying anything edible of a certain quality at a petrol station was foreign to most women and probably quite a few male customers agreed. Many found the prices to be a rip-off. Not a very promising cocktail for a highly competitive future. Too few female customers paid the shops a visit despite the fact that there were an increasing number of women sharing with the guys on the road a need for healthy convenience food to go.

FURTHER INFORMATION

This article is adapted from the e-book “The Female Benchmark” by Helle Katholm Knutsen & Mette Reinhardt Jakobsen.

ASK THE CUSTOMERS AND LISTEN DEEPLY

Dahlgren Skov and her Q8 colleagues chose a thorough and straightforward way to find out why some customers were rather or seriously reluctant to enter the kiosks. They asked the customers – and especially the talkative female ones. Dahlgren Skov: “We have to listen deeply to the voices of consumers and to remember that they can never tell us what they want. This is our job to find out!”

Their first insight was that women wanted to be tempted in a good, healthy way. They wanted to experience that the brand/the shop was doing its best – seriously considering the offers and intentions – and not just lazily repeating itself or following the rest of the trade. And they wanted to be involved and engaged in the development process and taken seriously when shopping. The take-home message was clear: Q8 needed to send clear signals about quality, hygiene, and freshness. Then the women would turn up to test it.

Talking to the customers, Q8 was also reminded that they should always remember to offer a good deal. This goes especially for the women who tend to be more reflective during the shopping process than men. Women notice details and evaluate them all the time; they negotiate and giving good quality for less is a great reason to buy.

Throughout this process, one point was constantly present: How do you avoid losing the guys? Later on, it turned out that quite a few of the male customers were out there waiting for the same convenience modernization and healthy products – just a bit delayed compared to the female customers.

From these insights and decisions, the *Qvik to Go* concept was born. It included a resourceful logo, competencies within gender balanced convenience design with a female focus, employees training – and a private label health products introduction.

FRONTRUNNER IMAGE THROUGH FEMALE INSIGHTS

A year after introduction, there were 20 *Qvik to Go* shops and follow-up research showed that Q8 were gaining market share. The shop and campaign continued to test positively against women – and men. A 50/50 gender distribution among customers was obtained, and the project was proving profitable.

“*By the end of 2012, most Q8 stations throughout Denmark – 106 – have a Qvik to Go shop,*” says Helle Dahlgren Skov, “*and now the gender thinking is deeply rooted in the company culture as a natural dimension of the brand’s personality.*”

In conclusion: As long as others within the specific business area are not yet fully aware of the female customer potential, it is a strong and highly profitable differentiation strategy and getting started will provide you with a frontrunner image and a platform for further investigations into the gendered approach.
Case 3: **FEMtools**  
*Pruning the stereotypes of chainsaw use*

**THE CHALLENGE:**  
**CHAINSAWS FOR ALL OF US**

The researchers had identified a problem: regular people often have problems using chainsaws, for a number of reasons like size, weight, unhandy design and difficulty in starting them up. People need to be able to maintain their gardens and cut firewood. This is something that both men and women face. There was also the difficult task of people with a smaller build finding appropriately sized personal protective equipment.

Chainsaws have a reputation; they are shrouded in narratives of danger and hard work, which puts off women and men who don’t correspond with the stereotype of a young, strong, technique-loving lumberjack.

**ABOUT FEMtools**

In 2012, a group of researchers from the Austrian Institute of Ecology contacted German company Stihl, a leading manufacturer of chainsaws, and together they embarked on the research project FEMtools (funded by FFG and bmvit).

**FURTHER INFORMATION**

See also project website:  
http://www.ecology.at/femtools.htm
Stihl provided the researchers with a range of chainsaw types, and a group of women was recruited to test the tools. The results were surprising.

Women didn’t want a tool that was specially designed for them; they just wanted a chainsaw that would be suitable for their different needs – from firewood harvesting to fruit tree and hedge cutting. They wanted a chainsaw that was easy to start and didn’t require heavy maintenance. The test group rightly pointed out that these changes could be beneficial to every user, not just women.

Motivated, Stihl went on to investigate how they could alter their product to be appropriate for use by everyone. As it turns out, there are already a wide variety of products on the market – some are gas driven, some have electric motors, and there are even chainsaws with rechargeable batteries and ergonomic startup-systems. But, ironically, the introduction of these machines has been carefully managed as not to damage the image of the hard-working, burly chainsaw.

A glance through the 2014 catalogues from the manufacturers of personal protective equipment (gloves, protection trousers etc.) shows that times are changing. A well-known supplier of protective clothing has a section called “What’s New – Not Just for Men”, and several manufacturers are now offering smaller sizes.

The FEMtools project demonstrates that listening to the demands of women not necessarily results in “female products” – it can create better products for everybody. And sometimes you have a great solution already in your hands – like the battery-driven chainsaw or the gas driven machines with ergonomic startup-systems – but it takes a shift in perspective to see it’s true potential.

If your business area is traditionally male dominated, then you too might have great opportunities within arm’s reach. Why exclude half of the market?
Case 4: ARTELIA

Turning a legal requirement into an innovation opportunity

Carole Guilhem is the manager of the Workplace Health & Diversity Project, and it’s her job to implement the policy, with the help of consultant Marie-Helene Therre, an engineer by training and owner of Inclusive Innovation, a French consultancy, specializing in gendered innovation. Therre has previously contributed to Stanford University’s Gendered Innovations project.

THE CHALLENGE: WHAT’S THE POINT?

The executives of Artelia were very focused on developing innovative and competitive offers. Complying with the new regulations were not necessarily their first priority. But Guilhem and Therre had a plan that would accomplish both of these goals: use the legal requirement as an innovation opportunity for human resources practices as well as business activities.

To achieve this, Guilhem and Therre decided to use a pedagogical approach aiming at creating a cultural change that would empower employees at all levels of the organization. But they were facing a challenge. In 2013, the question of gender equality was a non-issue in the male-dominated company. Therre remembers people saying: “In our activities, in our construction projects, what’s the point? This is something HR should handle!”

ABOUT ARTELIA

Artelia is an international and multidisciplinary engineering company with its headquarters based in France. Their competencies include consulting, engineering, and project management in the fields of construction, infrastructure, and water and environmental issues.

BACKGROUND

In 2013, Artelia’s executive managers signed an agreement with the staff representatives, to strive for “professional equality between men and women.” This agreement focused on four areas: wage policy, professional training, career development and work-life balance.
FIRST AWARENESS, THEN INNOVATION

One of their goals were to increase the number of women in high-level positions. Despite the fact that Artelia had recruited executives both male and female in nearly equal numbers, women were just not progressing at the same rate as the men in the company. They weren’t being involved in strategic decision-making bodies.

The most obvious place for Guilhem and Therre to start was with the women in the company. They held two workshops to sensitize 24 women working at Artelia about the professional place they wanted to take and were allowed to take. One of those participants was in Urban Development management who then went to a GenderSTE conference in Rome; she returned energized and full of ideas and joined them in presenting their idea, “Men-Women Diversity Serves Business & Innovation” to the Executive Committee.

Also, Therre invited the Artelia staff for several interactive conferences designed to provide a positive perception of gender diversity and the potentials and challenges it brings to the company. She needed to be really thorough in explaining the distinction between the concepts of gender and sex in order to create awareness in the organization, that this is an issue that concerns everyone.

Finally, Guilhem and Therre organized a new series of workshops with the women that had previously been made aware of their gender identity. This time, the purpose was to introduce the methodology of Gendered Innovation to the engineering industry’s ecosystem. They analyzed the sex and gender of their projects, their responses, and the company’s quality system. This resulted in a team of new “gender expert apprentices”, who could lead their colleagues, inspire their managers, and promote the subject amongst customers.

THE SEED GROWS

By late 2015, the seed had taken root and grew. Managers had learned to put female colleagues on the promotion short-list, and in consequence, eight of the female workshop participants had been promoted to positions with higher responsibilities. Others were identified for future promotion.

Today, the new “gender experts” continue to introduce new knowledge and develop unique skills in the world of engineering thanks to their gender-responsive analysis of their projects and activities. For example, they have provided a valuable human and social perspective on the task of reorganizing a port, which traditionally have been based on cold logistic calculations.

A legal requirement can be an ignition for change in companies. When we’re obligated to switch the way we think about our organisation and business activities, it can be a lever to meet unmet expectations and needs. Instead of viewing the change as a threat, we can use it as a way to innovate and get ahead of the curve.

The case of Artelia exemplifies this well, but it also teaches us that in order to use gender as an innovation source, it is often necessary to do some educational groundwork, creating awareness of the gender issue.
Case 5: e3ligth Mylight

Illuminating the benefit story - from her perspective

THE CHALLENGE:
DEVELOPING A WINNING BENEFIT STORY

The company had developed a new intriguing product: a LED flex strip set off by a motion sensor. There was just one problem: It wasn’t selling.

“When we first brought Mylight on the market, consumers were not clear what it was good for,” says Flemming Viktor Andersen, founder of E3light.

So he called in design-people, a Danish user experience consultancy, to define the target customers and develop a benefit story.

ABOUT e3light

e3light is a Danish startup specializing in environmentally friendly light sources.

FURTHER INFORMATION

See also project website: http://www.design-people.com/portfolio/e3light/
EXPLORING THE PRODUCT EXPERIENCE

Given design-people’s know-how with respect to emerging buying power of women, they proposed a female benchmark user. The team explored the entire product experience – from purchase and unpacking, to installation and use – from her perspective.

In dialogue with prospective female buyers and users, they developed promising benefit stories along with new use scenarios. “Bedlight” – the winning concept, introduced a scenario of comforting a child in the middle of the night. When getting up at night, the Mylight’s muted light will illuminate the floor as soon as you swing your legs out of bed, guiding your path and creating a calm and soothing atmosphere to console the child.

The identified scenarios inspired a packaging and communication concept, which women could immediately relate to their own needs. The Mylight packaging solution focused on easy installation and a satisfying first time use.

OPENING THE DOOR TO SUCCESS

Since the Mylight relaunch, US sales have taken off. In fact, they’ve been so good that the Danish Trade Council awarded E3light the Vitus Export Prize. “Our improved user experience and marketing approach were critical in opening the door to the US market,” says Andersen. “We expect to sell 500,000 Mylights next year.”

The female benchmark strategy can do for you what it did for E3light – challenge you to tell good benefit stories that appeal to both men and women. You might not even have to change your product.
Case 6: Ge:MMaS  
*Industrial machine design and gendered user research*

**BACKGROUND**

Dr. Eugenia Cojocaru, former senior researcher at the Linz Center of Mechatronics and responsible for structural engineering design, attended a design and graving fair in Frankfurt and noticed an unusually high number of female visitors. Consequently, she asked herself:

“Do these machines really fulfil the requirements of the users?”

**THE CHALLENGE:**  
**INDUSTRIAL MACHINES DESIGNED FOR GENDER?**

Cojocaru felt she was on to something. Women had been working with industrial machines for centuries, but the requirements of women had never really been considered in the design process.

When machine designers develop products for the general user, they often end up being biased towards the male user. This is because machine designers tend to assume unwittingly that only men have a certain level of technical interest and insight. Sometimes, a specific designer even uses himself as a representation of the general user.

When it comes to the professional users of industrial machines, such poor design decisions could become costly.

**FURTHER INFORMATION**

See also project website:  
http://www.imw.tuwien.ac.at/aw/project_overview/gemmas/
LISTENING TO THE USERS

Along with Trotec, a leading manufacturer of industrial machines for laser cutting and engraving, Cojocaru put together a team and together they launched the research project Ge:MMaS. She drew resources from Johannes Kepler University Linz, the Technical University of Vienna and the Linz Centre of Mechatronics.

Finally, the users of the Trotec machines were put at the center of attention. Their real demands, needs, and habits were explored in an everyday context. The researchers made sure that the female users had their say, investigating if they had a different experience than men.

As it turned out, men and women reported the same problem areas. There seemed to be no need for a “gendered machine”. The user requirements varied, however, with regards to their training level, education, prior professional experience, and the properties of the items they were working on. Thus, the most prevalent demand was about the easy adaptability of the machine.

“This is a very important finding to dismantle gender stereotypes”, says Dr. Waltraud Ernst, who participated as Gender Studies expert in the project. The female user group made valuable contributions to improve the functional design of the machines, enabling series production and reducing emissions and energy consumption. “Women want machines that work efficiently,” says Cojocaru.

A NEW GENERATION

The research helped Trotec to bring a new and successful generation of machines to the market. The order volume has increased considerably, more jobs have been created, and Trotec has seen an increase in productivity, worker satisfaction and equal working conditions for all users.

The success convinced Trotec about the technical, social and economic relevance of user participation in the design process: it makes innovations possible. And they now understand that paying attention to the demands of women is important, as “flexibility by design” has become their new approach.
Case 7: THE VILLAGE POINT
A user-centred and gender-sensitive approach to the problem of mobility poverty

THE CHALLENGE:

The first stage of the project identified the main problems experienced by a variety of users. The most frequent problems were:

1. The lack of public transport impedes independent travels.
2. Car ownership is a requirement to ensure mobility, but a challenge for sustainable development.
3. Bicycles are not a suitable alternative to: go to work; go to study; or get household shopping.

As put by Alain Denis, from the Belgian design company Yellow Window involved in this project: “Rural mobility is a wicked problem.” During this stage, it also became clear that there was a gender dimension to this problem.

Women and men face different challenges which are related to their gender roles. For instance, as women are more engaged in care than men, they depend more on a second car in the household, or may be in charge of finding a solution for travel to the kids’ activities. Therefore, women are most affected when travelling in rural areas, along with other vulnerable groups such as the elderly, the unemployed, and migrants.

BACKGROUND

Citizens living in rural areas of Flanders, Belgium, are confronted on a daily basis with mobility problems which can lead to ‘mobility poverty’. In 2015, the Flemish design promotion agency and partners initiated a project to formulate answers to this systemic mobility problem through service design.

FURTHER INFORMATION

This project has been recently shortlisted for the Service Design Network award 2016. The award ceremony will take place at the Service Design Global Conference on 27 October 2016.

THE SOLUTION

In order to find mobility solutions to the identified problems, a large and varied stakeholder group was involved throughout the project: users, experts, the social as well as commercial sector, and policy-makers. Besides thorough immersion, all stages featured interactions with end-users (ensuring that both women and men from all ages and backgrounds were involved) or special interest stakeholders. Concept design sessions were organised with end-users, stakeholders, and at a policy level.

The consecutive co-design workshops were based on clear policy directions and inspired by initiatives taking place in other rural areas, followed a gender-sensitive and intersectoral approach, and enabled users to generate solutions for the existing problems. One of the solutions found was ‘The Village Point’: a translated output of a service concept; a multi-functional and multi-modal point of access into the mobility system. The unique synergy between mobility, social and commercial services proactively supports users and the policies defined. It translates the needs of both women and men from all ages and socio-economic backgrounds.

THE RESULT

Envisioned as mock-up, The Village Point (or hub) needed to be tangible before being brought to mobility experts, social and commercial stakeholders and policy-makers. Therefore, local implementation was prototyped through user and system scenarios. A business model was also studied. The Village Point concept was designed and visualised. The concept was successfully validated with policy-makers and mobility experts, and some participating organisations followed up the concept with grassroots hub solutions. “It was surprising to see how a design approach brought new value, also to experts who had been working with rural mobility for a long time. They were enthusiastic with the results of this approach,” says Lut Mergaert from Yellow Window.

The project inspires confidence and encourages solidarity and self-help. It tends to benefit more mothers, elderly, (female) migrants and disadvantaged people because services are restored in the villages. They will now be less dependent on a car to get access to services. Real pilot projects are going to be implemented in 2016, followed by a real-life testing phase in different shapes, with different partners and on different locations.

The impact of the vision and policies on rural mobility were quoted to be ‘providing a backbone for future thinking about mobility in rural areas’. Plus, dynamics were set in motion at political level. Finally, alongside greater promotion for design thinking to solve systemic and societal problems, the project showed service design can trigger new ways of developing gender-sensitive policy instruments as well as public services.
Case 8: KONE: Female perspectives & visionary technology

Elevating the role of women’s experience in product innovation

ABOUT KONE

Finnish KONE is a global leader in the escalator, elevator and automatic door industry. For more than a century, they’ve provided clients with maintenance and modernization solutions as well as physical products. KONE’s user focus is reflected in their brand promise, “Dedicated to People Flow.”

THE CHALLENGE:

EXPLORING NEW INNOVATION FRONTIERS

While KONE had long been working with user experience, they’d focused chiefly on the physical aspects of interacting with their products. In order to develop and market new and better elevators, they wanted user experience concepts for the social, emotional and contextual use of elevators, based on user explorations. They felt they especially needed to better understand female users, who tend to have a more varied life cycle than men and are likelier to find elevator use more stressful.

“Many leading companies have started to pay special attention to the empathy aspect of their user experience, in order to acquire in-depth insight into their users’ needs and wants,” says Anne Stenros, Design Director at KONE, “The diversity of user groups in our industry is immense – so we decided to dive deep into the specific experiences of women of different ages and transform them into innovation potentials for the industry.”
VISIONARY USER-EXPERIENCE CONCEPTS
GROUND IN REAL LIFE EXPERIENCES

KONE decided to concentrate initially on women who use European shopping malls – a large, diverse group of users. They asked the Danish consultancy design-people and researchers from the University of Jyväskylä to explore the experiences of the target group and develop new concepts for elevator use based on the findings. Design-people conducted studies of female mall patrons in Denmark and England. The firm’s innovation team highlighted the women’s social and emotional concerns and then combined their motivations and barriers with new technology potentials to develop a series of positive user-experience scenarios. They then translated the scenarios into six elevator concepts for KONE to take further.

EMOTIONAL IMPACT FOR A SUCCESSFUL FUTURE

The six concepts have inspired and motivated various stakeholders at KONE to address people’s experience of their products in new ways – and to take advantage of the related tech-innovation and business potentials. To drive a shift in thinking forward, KONE decided to publish a booklet presentation highlighting five of the new elevator concepts and how they combine user insights and a visionary use of technology. In a large and engineering driven company this publication will contribute to let elements of the new concepts be incorporated in product development.

Even if your company is already great at user experience design – like KONE – the female benchmark strategy can be a path to new innovations for a competitive future. As KONE states in their booklet: “Besides our engineering excellence, it is our ability to connect with stakeholders and users on an emotional level that determines the future of our business. In this case, we chose to join up with the female users of our products, to specifically learn about their motivations, barriers and their experiences.”
Case 9: JOANNEUM RESEARCH: PyzoTex

Opening eyes to the perspectives of gender research

THE CHALLENGE:
AN UNFAMILIAR PERSPECTIVE

The PyzoTex project investigated the possibilities of integrating electronics into textile. The researchers wanted to design a t-shirt that would change its color depending on the PH-value of the wearer’s sweat.

The project got support from the gender-focused funding programme FEM-tech, which meant the researchers had to include a gender aspect. This was not business as usual for Gerhard Mohr, who – like most of his peer engineers – was not accustomed to considering gender differences in technology use. “Before you hear about the gender aspect, you might not realize it’s there,” he explains, “Your education affects your perspective.”

ABOUT JOANNEUM RESEARCH

Joanneum Research is an Austrian innovation research center that focuses on creating innovative solutions and services tailored to the needs of business and industry. One of their branches, the Institute for Surface Technologies and Photonics, initiated the research project PyzoTex.

FURTHER INFORMATION

See also project website:
An expert in innovation and gender research, Sybille Reidl, was selected as a consultant. Through discussions and critical questions, the PyzoTex researchers began to see that there are indeed gender differences — like ergonomics and clothing — relevant to the design of a sweat sensitive t-shirt.

Gerhard Mohr was particularly enthused by this new perspective. He now compares it to doing car crash testing with a “pregnant” dummy as compared to dummies with male ergonomics: “There’s a difference in performance! It seems obvious, but you have to have heard it to have an idea.”

In general the gender perspective taught him to think more about application scenarios of the technology he develops, and he realized that there probably isn’t much public demand for sweat sensitive t-shirts. Instead he is now working on a washcloth that changes color depending on the PH-value of the skin, which he imagines might be useful in caring for children.

“Now I always think about differences in age and gender,” Mohr says and tells the story of when he included the gender aspect as he lectured a bunch of engineering students about his research. “I hope to contribute. What Sybille told me, I try to tell to others.”
Case 10: VIFA COPENHAGEN
Brand development with a female benchmark

THE CHALLENGE:
LAUNCHING A HIGH-END AUDIO BRAND

Most companies in Vifa’s situation would have emphasized their history of technological innovation and tried to appeal to audiophiles. The audio industry is a crowded field with high name recognition among consumers. Their products, even on the low end, tend to be rich on features and low on usability, with an appearance that highlights function. That tendency may be particularly pronounced in the high-tech sector, but it is a way of thinking so deeply engrained in modern product development, that it is hard in almost any field to realize that there are alternatives. But true to their innovative roots, the Vifa executive team wanted to think outside the box, and the CEO, Michael Sørensen, was willing to apply a different approach to development, design and communication.

FOLLOWING FEMALE PREFERENCES

Sørensen decided to go with a new strategy that coupled Vifa’s superb audio skills with a dedicated focus on female user preferences. He joined forces with design-people, a small consultancy, specializing in making advanced tech products easy and attractive to use. Design-people’s user-centric design approach had recently been enhanced by The Female Interaction Project, a major research undertaking which aimed to understand the motivations of a vast, overlooked segment: Women.

In recent years, women’s buying power around the world has been rising far more rapidly than men’s. This trend – known as ‘womenomics’ – is rooted in women’s increasing access to education, better jobs and expanding influence in households, businesses and society.

ABOUT VIFA COPENHAGEN

Since 1933, the Danish company Vifa has been a venerable name in audio, producing state-of-the-art components for most of the industry giants. But they were unknown outside the industry – and now they wanted to reinvent themselves as a maker of high-end loudspeakers in their own right.

FURTHER INFORMATION

The VIFA Copenhagen has been awarded with the IF Design Award and the Red Dot Design Award, both in the category for best product design 2014.
To take advantage of this business potential, Vifa followed design-people’s suggestions and chose independent women with large disposable incomes as their target customers. The branding, development and marketing efforts were inspired by a number of female preferences that the Female Interaction project had identified as crucial. Social interactions, for example, matters more to women than men, so Vifa made sure to address the social context of how their speaker might be used – and how potential customers would become aware of them. The Female Interaction Project also revealed that women often hide tech appliances in their home. This insight inspired a design approach that utilized materials, surfaces and patterns from interior design – at the same time downplaying technological and interaction features and incorporating them into an attractive whole that was readily integrated into the home.

On February 3rd 2014, the exhibition halls were abuzz with activity as workers uncrated sofas and assembled display cases, trying to create a feeling of light and space in the cramped exhibit areas. The Vifa marketing team felt like a fish out of water as they set up a display booth with their new wireless speakers. Like everyone else there, they were hoping to attract the notice of the legion of tradespeople and press who would soon descend upon the Stockholm Furniture Fair – the world’s largest showcase for Scandinavian design. The marketing and sales people from Vifa glanced around nervously. After two years of intense branding, design and development effort, was it rash to launch their new line of speakers here, instead of at IFA Consumer Electronics Show in Berlin?

**THE MARKET RESPONSE**

By lunchtime on opening day in Stockholm, people were already clustered around the Vifa stand. The response from women was particularly striking – and the buzz spread online in the weeks and months that followed. “In all my time in the design industry, i have never seen such a tremendous response to a new product,” says Lena Hansen, Vifa’s Marketing Director, “Social media, web forums and the blogosphere have embraced us, and we have been getting inquiries from around the world – it has been just stunning.”

The success was anything but random, a result of the strategy that Vifa’s CEO, Michael Sørensen, created together with design-people. No audio brand had ever addressed itself so consistently to the female consumer – a segment that Vifa aims to own. And Michael Sørensen is the first to give this approach credit for a large share of Vifa’s success: “Focusing on women as a benchmark for the Vifa user experience has given us the competitive edge we need. As a new player in a well-established market, we need to differentiate ourselves – and we have done that by making the Vifa Copenhagen speaker an exclusive lifestyle statement with a high-quality sound core. With this strategy, we have embraced the emerging buying power of women, while still attracting male customers.”
ABOUT genderSTE

genderSTE is a network of policy makers and experts committed to promoting a fairer representation of women and better integration of gender analysis in research and innovation. We disseminate state of the art know-how on structural change of institutions and on methods for gendered analysis in research. We aim at advancing the state of knowledge in the specific fields of: cities, transport, energy, climate and industrial innovation. Our members represent government bodies, research organizations, universities, non-profits, and private companies from 40 countries, in Europe and beyond, as well as international organizations including the European Commission.

genderSTE focuses on:

**STRUCTURAL CHANGE OF INSTITUTIONS**
Women make up 60% of university graduates in Europe but only 20% of full professors. This is a loss of talent that neither European research nor the economy can afford. The percentage of women in the higher levels is not increasing at the same speed as the number of women with the age and the qualifications to reach them. We will not have the best research if more than half of European university graduates are not granted a “level playing field”. It is also an unfair situation, which challenges European legislation on equal opportunities.

**INTEGRATING GENDER IN RESEARCH**
Sex and gender analysis adds value to society and the economy by making research more responsive to social needs and by developing new ideas and patents addressing a broad and diverse user base. It helps in reducing sex and gender bias that can lead to omissions and distortions. Excellent research considers the potential biological sex and social gender elements. Not including the sex/gender dimension into the methodology, content, and impact of research can lead to poor research and missed opportunities.

**CITIES AND GENDER**
The gendering of everyday lives is experienced at all spatial scales. Access to employment, good housing, shops, green space and essential services such as health care and education has an impact on health, wellbeing and life chances. Gender differences are highlighted in responsibilities for caring, public services, safety and mobility. Gender sensitive planning and urban design can help to reduce the impacts of differences. Safety, housing, gendering of big data, participation, and decision making, are some key areas for research and action.

**TRANSPORT AND GENDER**
Women and men have persistent different transportation needs, behaviours and levels of access to services and infrastructure. Women walk more, use more public transportation and are more sensitive to safety concerns. There is a disadvantage in terms of access to transportation that negatively affects women’s professional development and personal wellbeing. The participation of women is very low in the transportation sector, which has an impact on how transport systems are understood and designed.

**ENERGY, CLIMATE AND GENDER**
While there is growing evidence that gender is a significant dimension in the energy sector and in both the consumption causes and impacts of climate change, this research is still relatively meagre, not well known, recognized, widely available, or used within policy and industrial processes. This body of research needs to address a number of issues for future enquiry: to better incorporate intersectionality and context; to integrate focuses on adaptation and mitigation; balance big data with lived experience; gender dimensions of green jobs.
**OUR OBJECTIVES:**

* To promote the participation and leadership of women in science, technology and innovation, by supporting structural changes in organizations.

* To advance the integration of gender perspectives in research and education in technological areas.

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**BASIC AND APPLIED RESEARCH**

We provide support at all stages of the process of integrating gender perspectives in curricula at undergraduate, postgraduate and lifelong learning programmes, including courses addressed to decision-makers.

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**EDUCATION AND TRAINING**

We promote, develop, execute and provide support for gender analysis in research, development and innovation, integrating sophisticated methods for gender analysis.

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**DISSEMINATION, ADVOCACY AND ENGAGEMENT**

We promote the sharing of knowledge among high-level, internationally-recognized research staff around the world, and with public and private organizations, engaging stakeholders and supporting advocacy for policy change.

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**STRATEGIC EXPERT ADVICE**

We provide strategic, customized expert advice to public and private organizations for gender mainstreaming their policies, plans, programs and projects, maximizing impact and ensuring effective implementation.

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**CONSULTANCY & TECHNICAL ASSISTANCE**

We provide specialized technical assistance to public and private organizations geared to build institutional capacity for effective gender mainstreaming.

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**FOR PROFESSIONAL WOMEN...**

If you are a woman wishing to develop your fullest potential in the professional fields of engineering, urban planning, housing, transportation, architecture, or STEM, you can reach us for mentoring, advice and support.

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