AUTHOR(S): GULARI, M.N., MELIORANSKI, R.-H., ER, O. and FREMANTLE, C.

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The Future of Design Support: What Can We Learn From Design Support Experience in the UK, Estonia and Turkey?

Melehat Nil Gulari[a*], Ruth-Helene Melioranski[b], Ozlem Er[c], Chris Fremantle[a]

a Robert Gordon University, UK
b Estonian Academy of Arts, Estonia
c Istanbul Technical University, Turkey
*Corresponding author e-mail: m.n.gulari@rgu.ac.uk

Abstract: This article provides a comparison of design support landscape of three countries: the UK, Estonia and Turkey. The economic and political development patterns and experience of design support within these countries lead to different models of design support. The differences are visible in the levels of support, aims of innovation, available resources and opportunities but also priorities. The way in which these projects/programmes are initiated, operate and sustain themselves vary as well. The article aims to understand the future of design support through looking at the versatile programmes in these countries. It provides a historical background of design support by building on specific programmes in these countries. Based on the knowledge drawn from comparison of histories of support, the paper not only makes suggestions for the development of future of design support models.

Keywords: Design Support Programmes, Design Support, Innovation, Design Policy, SMEs

1. Introduction

In the last few decades, there has been an increase in the number of government-funded entities that aim to support innovation strategies for new product/service development and organisational change for businesses in both developed and developing countries. Considerable resources are spent on 'business support', which often takes the form of information and advice provided by professionals from various disciplines, and which relies on financial incentives provided to businesses. Design Support Programmes (DSPs) refer to funded projects and time-limited programmes that aim to assist businesses externally in achieving their objectives by working closely with them and by using design methods, skills and knowledge (Gulari, 2014).

This study compares DSPs that have been implemented in UK, Estonia and Turkey, through which speculating the future of DSPs for businesses and primarily for SMEs[1]. These countries are significant

[1] The EU definition for SMEs is medium enterprises with fewer than 250 staff and turnovers of €50m; small enterprises have up to 50 staff and €10m in turnover, and 'micro' enterprises, up to 10 and €2m

since they have quite diverse socio-economic backgrounds as well as design support history and design education vary. For example, the UK has a long established history of publicly funded DSPs starting from the early 80s while the first publicly funded design support programme was launched in Turkey in 2012 and in Estonia in 2012. “The Cox Review of Creativity in Business” commissioned by the UK Government, aimed to improve the competitiveness of companies through the strategic use of design and presented “design is what links creativity and innovation” (Cox, 2005, p.2). It highlights five key recommendations (Cox, 2005, p.4). The UK Government’s response towards these suggestions was positive, some of which have been partially implemented (Raulik-Murphy, 2010). Following the Cox Review, several DSPs have been established in the UK.

While Estonian design education is considerably established and over hundred years old. Prior to 1991, the topic of design policy and DSPs was not relevant in the soviet deficit economy. However, Estonia has been effectively working on promoting design and establishing its design policy since the beginning of the millennium. The Estonian Design Centre was launched in 2008 and from the beginning focused on developing design support. In 2012, “Estonia was the only country in Europe to have an explicit design policy, the National Action Plan for Design” (The SEE Platform, 2012).

As a developing country, the industrial design education in Turkey is relatively young, starting in the early 70s. Turkish Design Advisory Council has been founded in 2009, under the presidency of the Ministry of Science, Industry and Technology involving senior government officials and non-governmental organizations (Turkish Advisory Council, n.d.). Till now, industrial design departments within various universities and the Industrial Designers Society of Turkey (ETMK, founded in 1988) which is a civil initiative, have led the advancement and promotion of design in Turkey.

2. Background

The importance of SMEs for economic growth and the acceptance of design as a driver of innovation (DTI, 2005; Mollerup et al., 2003; The SEE Platform, 2012) have led to policies that promote and facilitate design innovation support for SMEs. The promotion and support of design is the main activity of many DSPs based on the premise that SMEs do not understand and use design effectively. For a long time, exhibitions, awards, or competitions have been the most of the actions of design promotion & support centres.

There are diverging support mechanisms with varying strategies, methodologies, infrastructures and resources depending on the economic, social and political circumstances of the country (Cawood et al., 2004). One strategy aims to fill the gap between design and SMEs by raising design awareness within a company and encouraging design practice, while another strategy aims to improve business efficiency (Tether, 2006). Borja de Mozota (2005) recommends that DSPs choose their strategy first, either for creating the customer, performance, strategic or financial value, and then they should follow strategies with suitable actions.

Tether (2006) categorises the modes of design support in five groups by analysing the different types of support strategy amongst the SEE (Sharing Experiencing Europe) design project partners. The first group is “the direct provision of design consultancy to individual firms”. In this case, the DSP functions as a design consultant. He states that this mode is not applied amongst the SEE partners. The second mode is “subsidising investments in design in individual firms” applied by The Danish Design Centre, in the ‘Icebreaker’ project. Design Voucher, Estonia is an example of this mode. This mode also refers to design placements within companies and is applied by the Czech Republic scheme. The third mode is “individual counselling and advisory services”. Unlike the first two modes, in this mode, a design support agency helps companies identify their needs and provide a bridge

between design consultancies but do not directly address the problems of companies being supported. This support may ease the collaboration between design consultancy and the client firm. For example, the 'One-to-One Advisory programme' (Design Wales, UK), and the 'Design Pilot programme' (Centre du Design Rhône Alpes, France) use this model. The fourth mode is "workshops or seminars providing design advice". This refers to providing support and information to many companies in a one group. Examples of this type of provision include the 'Trend, Style and Colour Events' (Design Wales), and the 'Design Makes a Difference Workshops' (Design Flanders, Belgium) belong to this mode. The final mode of design support in his categorisation is "recognition of design achievements through awards or certification". This mode provides endorsement through design certificates and prizes. As recognised by Tether himself, this mode is different to the rest of them because it gives recognition to a design outcome instead of providing direct support for the design process. The Green Home scheme run by the Experimental Centre for Furniture and Furnishing, in Tuscany, Italy are some examples given by Tether.

To Tether's observation, the existence of different modes of delivery suggests that design support has "been developed on an ad hoc basis in response to actual or perceived local needs" (Tether, 2006, p.9). Er et al. (2013), on the other hand, suggest that the variety of design support is related to the level of design development. For example, in countries, such as Brazil, Turkey and the Czech Republic, where there is not enough experience of DSPs, the funded services mainly focus on new product development, while a holistic approach to design support is observed in developed countries, such as Denmark and the UK.

Yet, a product-based approach can be observed in the UK; for example, iCentro de Design do Paraná, in Brazil, by adopting a Scottish model derived from Glasgow Collection, developed product designs within an 18-month time-frame (Wood et al., 2004). Their process focused on concrete design development; 41 prototypes were displayed at the end of the project. To Wood et al. (2004), as a result, 40 local companies literally saw the potential of design for improving their businesses. In this regard, it is similar to the processes observed in Turkey.

The landscape of design support in the UK yet has developed over the years and now it seems complicated where there are so many actors and possibilities, and these actors are not that well connected. The design support in Estonia, perhaps, is rather easier to understand and access, as the history is shorter and country smaller. The Estonian few years old DSP experience includes two major design support mechanisms: Design Voucher and Design Bulldozer. Design Voucher offered financial support to innovation through product or service development. Design Bulldozer focused on design management by offering an external design manager to consult the company, to audit the possibilities for design interventions and to help to hire a designer for product or service development. The latter aims to offer more complicated and sophisticated support than just product development. Although the designers are hired to design new products, services or communications, the main reported outcomes are more structural and changes in processes (e.g. new structure of the company (Proexpert, Meiren), new implemented development process in Datel and Regio). (Estonian Design Centre (2014). Table 1 brings together a variety of DSPs operated in several countries.

Table 1.Examples of DSPs.

Belgium	SME Wallet (2002-2014)
Brazil	Criacao Programme (2000-2005)
	iCentro de Design do Paraná (2002-2004)
Canada	Design Advisory Service (2009)

UK	Funded Consultancy Scheme/Support For Design (1982-1987)
	Business Links,(1992-2001)
	WINNOWATE Programme (2004-2006)
	Brand Essentials' (2006)
	Designing Demand programme (2002-2010)
	The Design Leadership Programme (2010-Present)
	c4di (2008-2012)
	Design in Action (DIA) (2012-2016)
Czech Republic	Design Programme (1999- present)
Estonia	Design Bulldozer (2012-2016)
	Innovation Voucher (2012-2015)
Finland	Design Start (1999)
	Design 2005! (2002-2005)
France	IBC (2002-2004)
	Design Mecaloire (2005-2006)
Greece	Extraversion: Competitiveness of Enterprises (2011-present)
Ireland	Innovation by Design (2007-2008)
Norway	Design Support Programme (1998- present)
Poland	Design Silesia (2010-present)
Spain	Predica (2005)
Netherlands	Design Pressure Cooker Plus (2005-2007)
Turkey	Design for SMEs (2012)

The general aim of DSPs is to increase employment (Criacao Parana Programme, Brazil); to introduce design to delegates (Design Advisory Service, Wales); to support regional innovation (Design Industry Insights, 2010); to give insights to traditional manufacturers (Ceramic Workshops in Tunisia, Italy); to integrate design into research, education, and business organisations (Design 2005!, Finland) and support design entrepreneurship (Design in Action, Scotland). DSPs also aim at increasing awareness and building capacity towards design related subjects such as eco-design, sustainability and policy making (Design Centre Rhone-Alps, France), or writing a design brief, introducing innovation methods (UK Brand essentials, Wales; C4di, Scotland).

2.1. Studies on comparing DSPs in different countries

The SEE Platform (2013) published a report comparing a number of programmes from their partner countries including Ireland, Estonia, UK, and Belgium. Their focus was on policy context, aim, target audience, type of intervention, operating costs and impact and evaluation procedures. Similarly the EU commissioned project REDI (2014) compared European DSPs: Design leadership programme for business (UK), The Design Integration Programme (New Zealand), Innovation by design (Ireland), Danish design support programmes (Denmark), Design Pilot (Norway), Design awareness and design integration programme (France) and Design Bulldozer (Estonia).

Amongst few peer-reviewed studies, Choi et al. (2012) compared two national DSPs: Designing Demand (UK) and Design Innovation (South Korea) through desktop research, in-depth interviews conducted with experts from the Design Council and the Korean Institute of Design Promotion and

surveys with SMEs. Their study looks at the effectiveness in relation to the national design system and provides recommendations for DSPs. It was highlighted that their autonomy and flexibility appeared to be critical. Despite the existence of a few studies and recommendations for the development of DSPs, there is scope to explore the future of DSPs. This research aims to contribute to the ongoing discussion on the future DSPs through comparing the DSPs in selected countries.

3. Research Design

In this study, we focus on analysing three DSPs: Design in Action (Scotland, UK), Design Bulldozer (Estonia), Design 4 SMEs (Turkey). Design 4 SMEs and Design Bulldozer were selected since they were the first DSPs for Turkey and Estonia. Data for the research was collected through participant observations (where the authors were also the deliverers e.g. DIA and Design 4 SMEs), interviews (e.g. Design Bulldozer) and desk research. The data regarding the Design Bulldozer programme was gathered from the Ministry of Economic Affairs and Communication and the Estonian Design Centre. An interview was conducted with designer Martin Pärn, who created the idea for the Bulldozer programme and later was one of the design managers in the programme.

The present research applied a deductive approach that is using a priori template of themes in order to achieve a systematic analysis. To Fereday and Muir-Cochrane (2008), the use of a priori template increases the credibility of a study by providing a clear trail of evidence and transparency. A template of themes was developed through adopting the structure outlined by Rossi et al. (1998), in their seminal book, “Program evaluation: a systematic approach”, on social programme evaluation and Gulari’s research on DSP evaluation (Gulari et al. 2013; Gulari 2014). The categories form the template are “evaluation of programme need”, “evaluation of the programme theory”, “process evaluation” and “result evaluation”. “Administrative comparison and sustainability” were added new categories. These categories guide the researchers in identifying areas to look at and organising the text and themes and enabled comparison.

4. Analysis

We first briefly introduce the DSPs, before we conduct the analysis. Design in Action (DIA) was a four-year programme developed and delivered by a consortium of five design departments within Higher Education Institutions in Scotland including Duncan of Jordanstone College of Art and Design, Gray's School of Art, Glasgow School of Art, Edinburgh College of Art, and the University of Abertay along with the University of St Andrews. DIA, one of four AHRC funded knowledge exchange hubs, supports businesses innovation through design.

Design Bulldozer is Estonia’s first DSP, operated first time in 2012-2014 for ten companies and continued in a shorter version 2015-2016 for five companies. The programme aimed to foster innovation and export through implementing design management and the use of design services. This has been financed by Enterprise Estonia and delivered by Estonian Design Centre.

Design 4 SMEs has been initiated to benefit 20 SMEs from government funding by means of recruiting 20 newly graduated designers for a period of 4 months to design a new product. It is the first government-funded project in Turkey that aims to introduce SMEs with design and to facilitate young designers’ employment. The concept of this project was built on the experience of the ITU Graduation Projects to a large extent which have been carried out with SMEs which are members of the Istanbul Chamber of Industry between 2003-2013 (cf. Er and Er, 2003). However, in the ITU

graduation projects, students were not paid a fee, and there was no experienced designer acting as the advisor. ITU Graduation Projects labelled as Design for SMEs were carried out in collaboration with Istanbul Chamber of Industry between 2003-2013, each year 20 to 30 SMEs participating on average.

Table 2 compares these programmes on different themes. The themes have been adapted from Rossi et al.' s (1998) programme evaluation framework and Gulari's (2014) research on DSP evaluation.

If we refer back to Tether's categorisation of DSPs, we can say that Design 4 SMEs falls into the first mode, direct provision, while Design Bulldozer being a more complicated programme, contains both the third and fourth modes. DIA does not fit into any of the categories directly because of its entrepreneurship and innovation focus. To some extend DIA contained the fourth mode through delivering seminars providing design advice. However, their one-to-many workshops were focusing on innovation and bringing new ideas to market instead of giving design advice. Our analysis illustrated that the landscape of DSPs is much richer and more diverse than mapped by Tether. Therefore, we suggest to expand the existing categorisation by adding an extra mode of providing advice for building design entrepreneurship and innovation capabilities and the combinations of different modes would help to describe the richness of the support provided.

Table 2 Comparison of DSPs: Design in Action (UK), Design Bulldozer(Estonia), and Design 4 SMEs (Turkey)

Comparison Criteria (Rossie et al. 1998)	Sub categories-Description (Gulari, 2014)	Design in Action, UK	Design Bulldozer, Estonia	Design 4 SMEs, Turkey
The need comparison	Specific problem areas that necessitate to be addressed by design support activities	To foster innovation in SMEs To encourage entrepreneurship To encourage knowledge exchange amongst academics, SMEs and designers.	To increase participating companies' export and investments in innovation and development [2]	To introduce SMEs with design To facilitate young employment
Process comparison	Approach-The types of support provided: Signposting-promoting Facilitating-	Co-creation and participatory innovation workshops One-to-many, facilitating-empowering	Design Management and design audit, Facilitating-empowering One-to-one, Advisory	New Product Development, Design Consultancy Model One-to-one, Advisory

[2] ("Disainivaldkonna riiklik tegevusplaan 2012-2013," 2012)

empowering Advisory			
The structure of the operations	*Design Support:* Scoping Chiasmas, Delivering Chiasmas>>Development of businesses *Design Promotion:* Design Summit Public Seminars	Training for the deliverers>>Design audits for companies>> Development of design solutions>>Public Review	Recruitment of SMEs and designers through Designer-SME Matchmaking>>New Product Development Phase
Duration of support and scope	2012-2016 -with no limit to participation Focused on five key sectors of the Scottish economy: Food, Information Communications Technology, Wellbeing, Sport and Rural Economies	2012-2014 -1st Design Bulldozer (20 months; 10 companies, different sectors and all sizes 2015-2016- 2nd Design Bulldozer (8 months; 5 companies, with minimum of 10 employees, prioritising manufacturing industry):	2012-1year The pilot application 4 months (March 2012- July 2012), 20 SMEs Not sector specific. All SMEs are members of Istanbul Chamber of Industry (ISO).
Implementation and Delivery: The role of delivers	2.5 days long residential innovation workshops, Chiasmas, bringing businesses, academics and designers together. The DIA team facilitated chiasmas and employed design innovation tools. Workshops focused on development of innovative ideas and business models Successful ideas received funding up to £20K along with business support to	A design manager is appointed to participating company to carry out design audit and to mentor the design process, which resulted in the development of a design brief. The first Design Bulldozer engaged external expert Richard Eisermann, but he was not	Designer-SME matchmaking through a tailor made website with respect to their interests, needs and location. An experienced professional designer has been appointed as an advisor to each newly graduated designer to monitor/advice throughout new product

		bring the idea to the market.	involved in the second.	development phases.
Result comparison -Impact	Outputs and outcomes comparison (Outputs are activities and facilities that DSPs offer to SMEs, whereas outcomes refer to the achievements resulting from the activities of the design intervention.)	*Outputs:* Delivered 15 Chiasmas *Outcomes:* 35 New innovative ideas created and registered to IP banks Capacity building amongst participants[3] 135 New Jobs Created Introduction of 6 new businesses with one over £2M revenue New connections between participants	*Outputs:* Design briefs 2 design trainings and 2 seminars to exchange experiences Design audit report *Outcomes:* New connections between designers, design managers and businesses. New design knowledge was put into practise. There hasn't been done any impact measuring.	*Outcomes:* Youth Employment and experience: 20 newly graduated designers were recruited for the first time New product development and improvement of SME Product Range:20 New products, 11 of the SMEs applied for a design registration, 2 of which were utility models. Raising design awareness amongst SMEs Increased academic knowledge
Stakeholder comparison	Who is involved in the process	*Stakeholders:* Duncan and Jordanstone School of Art and Design, Glasgow School of Art, Edinburgh College of Art, Robert Gordon University Abertay University, St Andrews University *Participants:*	*Stakeholders:* Estonian Design Centre (EDC), the Ministry of Economic Affairs and Communications Enterprise Estonia *Participants:* SMEs, Design Managers, Designers	*Stakeholders:* ITU executive team Istanbul Chamber of Commerce. *Participants:* 20 SME participants and 20 new graduate designers.

[3] (cf. Chris et al, 2016)

		SMEs, transdisciplinary academics and designers		
Administrative comparison Budget	How these projects have been administered. Academic setting-non academic setting Scale-size-budget	Academic Setting Delivered by a consortium of six universities in Scotland. Team is made of 29 academics and professionals. The hub involved early career researchers and PhD students. It is a £5M Knowledge Exchange hub funded by Art and Humanities Research Council and £400k from Creative Scotland	Non academic setting Boths rounds were administered and delivered by Estonian Design Centre Bulldozer 1 was 410k € project.	Academic setting Executive team at ITU Department of Industrial Product Design, comprised of 4 academics, and 5 Professional design advisors Received support from ISO and ISTKA- total 150k€
Sustainability	How these projects sustain themselves.-funding, no funding, charging SMEs etc.	Funded by AHRC and Creative Scotland Franchised the model to Northumbria University in England Commissioned by Royal Bank of Scotland for delivering a Chiasma. Received a grant a Newton Fund to deliver a Chiasma in Turkey	The major funding was from European Social Fund; provided by Enterprise Estonia The involved companies were charged: 3000€ in the Bulldozer 1 and 2000€ in the Bulldozer 2. Right now (end of 2016) the third is being prepared by Enterprise Estonia	The project format is repeated by other agents e.g. İMMİB Etki project funded by İSTKA This particular project does not continue in the same format

5. Discussion and Conclusion

This paper has reviewed DSPs for SMEs, particularly focusing on three countries: the UK, Estonia and Turkey. Drawing on the analysis of these three DSPs, we have envisioned the following future scenarios for DSPs.

Scenario 1- Design Entrepreneurship. Instead of focusing on small businesses who are reluctant to use and embrace design, focus on designers for them become entrepreneurs and innovators. DIA has been launched as a conventional support programme where the focus was on supporting businesses/SMEs with design-led innovation methodologies. However, throughout the four years, the scope has been widened to include the development of new business models and design entrepreneurship. The workshops were well participated by designers, and it has been observed that in many occasions, designers took ownership of the idea generation process, and they behaved as entrepreneurs. FarmTable, Know Sugar shops are amongst successful ideas that were brought into market by designers.

Scenario 2- Low Budget DSPs. The current trend towards reduced research funding requires researchers to develop new forms of DSPs which can be operated at lower cost. Compared to both DIA and Design Bulldozer, Design 4 SMEs had a relatively small budget. Newly graduated designers through working with SMEs earned money and gained hands on experience concerning how to execute commissioned design work. This process is facilitated and supervised by experienced designers and the ITU Project Execution Team. The programme developed and piloted a strategy for youth unemployment problem by recruiting new graduate designers and can also be regarded as a potential solution to the problem. ITU's approach on bringing senior students and SMEs together for graduation projects can be a viable strategy for both sides to learn from each other and gain hands on experience in a controlled setting.

Scenario 3- Integrating Digital Technologies into DSPs . SMEs are eligible to participate in DSPs. Participation depends on the company's interest and commitment. Gulari et al (2013) suggest that DSPs sometimes have no criteria, except that of being an SME, for selecting participants. However, a lack of clear criteria for selection may result in DSPs working with companies that are not ready for pursuing innovation or that do not have the means to take the initiated work further. Financial readiness, curiosity, motivation, commitment and responsiveness are amongst the selection criteria highlighted by the research (ibid). The tailor made brokering/matchmaking website of Design 4 SMEs can be seen as a platform to include these criteria and an early step of digitalisation of DSPs (Er et al, 2013). We speculate that reduced funding may also push several DSPs to be digital and work as an online platform for information, advice, networking and brokering.

Scenario 4- International DSPs. The overall aim of the Design Bulldozer was to increase international trading. The first phase of the Design Bulldozer programme also employed an external British designer to get benefit from international design experience. (Yet, the support mechanism was then focused on increasing the use of design in participating companies) Still, countries like Estonia, which have relatively small internal markets can hugely benefit from international collaboration. This can range from gaining international design experience to exporting SMEs' goods to international markets.

Currently, as illustrated by our literature review, the majority of these DSPs are national, often regional. The future of design support could focus on delivering programmes internationally which could go beyond simple collaboration and commercialisation activities between the DSP and partner countries. In addition to the new knowledge of international markets and international partnerships for SMEs, this approach would also raise the expertise of the DSP deliverers through the

collaboration with organisations with similar aims in foreign countries. This international collaboration can be designed from the outset and the programme can be comprised of international deliverers. This might mean different ways to access funding or considering alternative funding sources.

Design support is a complex domain in which several uncertainties and huge risks exist in terms of innovation and SMEs growth. Subsequently, imagining one specific and permanent model that is valid for each and every situation is very difficult. Therefore, we have introduced above mentioned future scenarios to inform DSP deliverers and policy makers and help improve the efficiency and effectiveness of their provision. This study presents several results derived from different experiences and the opinions of respondents and observations of authors as programme deliverers. Future research can test these scenarios with focus groups including SMEs and policy makers.

References

Borja de Mozota, B. (2005). The four powers of design, *SEEdesign Bulletin*, 1, 3-5.

Cawood, G., Lewis, A., & Raulik, G. (2004). International perspectives on design support for SMEs. *Design Management Review,* 15(4), 71-76.

Choi, Y., Lim, S., & Evans, M. (2012). Supporting design: national business support programmes in the UK and South Korea. *The Design Journal*, 15(1), 79-104.

Choi, Y. (2009). *A comparative study of national design policy in the UK and South Korea*. Unpublished PhD thesis. University of Lancaster, Lancaster, UK.

Cox, G. (2005). *Cox Review of Creativity in Business: building on the UK's strengths*. London, The Stationery Office.

DTI (2005). *Creativity, Design and Business Performance. DTI Economics Paper No 15.* London, UK: Department of Trade and Industry (DTI). Retrieved December 23, 2016, from http://www.dti.gov.uk/files/file13654.pdf.

Er, H. A. & Er, Ö. (2003). Two birds with one stone: A combined project of design education and design promotion for small and medium enterprises (SMEs) in Turkey. *Proceedings of the ICSID 2nd Education Conference*. (p.44-46), Hannover, Germany.

Er, Ö., Soylu, Y., Basar, D. L., & Gokkurt, A. (2013). A new model to introduce SMEs with design. *Proceedings of the 10th European Academy of Design Conference,* (pp. 1-18), Gothenburg, Sweden.

Fereday, J., & Muir-Cochrane, E. (2008). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Methods*, 5(1), 80-92.

Fremantle, C., Gulari, M. N., Fairburn, S. M., Hepburn, L. A., Valentine, G., & Meagher, L. (2016). Impact by design: evaluating knowledge exchange as a lens for evaluating the wider impacts of a design-led business support programme. *In the Proceedings of the 20th DMI: Academic Design Management Conference Inflection Point: Design Research Meets Design Practice*, (pp. 405-430), DMI:Boston, USA

Gulari, M.N., Fairburn, S., & Malins, J. (2013). Assessing the effectiveness of the design-led innovation support for SMEs*. Proceedings of the 10th International Conference European Academy of Design: Crafting the Future,* (pp. 1-16) Gothenburg, Sweden.

Gulari, M.N. (2014). *Evaluating the effectiveness of design support for SMEs in Scotland.* PhD thesis. Robert Gordon University, Aberdeen, Scotland. Available at https://openair.rgu.ac.uk/handle/10059/1238

Estonian Design Centre (2014). Buldooserettevõtete lühilood [The short stories of Bulldozer companies]. *Unpublished paper.* Tallinn: Estonian Design Centre

Estonian Ministry of Economic Affairs and Communication (2012). Disainivaldkonna riiklik tegevusplaan 2012-2013. [Design Action Plan 2012-2013] Retrieved December 28, 2016, from https://dev.riigikantselei.ee/sites/default/files/disainivaldkonna_riiklik_tegevusplaan_2012-2013.pdf.

Mollerup, P., Friedman, K., Korvenmaa, P., & Landerholm, J. (2003). *Establishing the basis for the elaboration of the Estonian design policy measures,* Report Published by Danish Ministry of Economics and Business Affairs Program for Eastern Europe, National Agency for Enterprises and Housing, and Estonian Ministry for Communications

Raulik-Murphy, G. (2010). A comparative analysis of strategies for design promotion in different national contexts. Unpublished PhD Thesis. University of Wales, Cardiff, UK.

REDI (2014) Supporting design driven innovation: A review of selected programmes. Retrieved December 28, 2016, from http://bsc.smebg.net/redi/resources/WP1_Report.pdf

Rossi, P. H., & Lipsey, M. W., Freeman, F. E. (1998). *Evaluation: A systematic approach (6th ed.).* Thousand Oaks, CA: Sage Publications.

Tether B. (2006). Evaluating the Impacts of Design and Design Support. *SEEdesign Bulletin*, 3, 8-10.

The SEE Platform (2012). Estonia's Design Action Plan 2012-2013 *SEE Bulletin,* 8, 6-7

The SEE Platform (2013). Reviewing Design Support Programmes in Europe, Policy Booklet 6, Retrieved December 28, 2016 from http://www.seeplatform.eu/docs/SEE%20Platform%20policy%20booklet%206.pdf

Turkish Design Advisory Council (n.d.). Turk Tasarım Konseyi, (Turkish Design Advisory Council) [In Turkish], Retrieved December 26, 2016, from http://www.tasarimkonseyi.gov.tr/konsey/mainpage.jsp#about.

Wood, B., Pougy, G. & Raulik, G. (2004). Design Experience: Transforming Fragile Ideas into Innovative Products. *Design Management Review*, 15(1), 74-79.

About the Authors:

Melehat Nil Gulari was a research fellow on Design in Action. Her research focuses on design support for businesses and design entrepreneurship. She holds a Bachelor of Industrial design (METU, 2005), MSc in Industrial Design (ITU, 2009) and PhD in Design (RGU, 2014).

Ruth Helene Melioranski a PhD student at the Estonian Academy of Arts researching design policies and design support programmes, and how design can tackle societal challenges. She is a researcher developing the international master's programme of Design & Engineering.

Özlem Er received her BID and MSc degrees from the Middle East Technical University (METU), Turkey, and her PhD from the Institute of Advanced Studies at Manchester Metropolitan University, the UK. She is currently a full professor at the Department of Industrial Product Design, Istanbul Technical University (ITU).

Chris Fremantle works with innovative social, participatory and co-creative art and design practices particularly exploring commonality and difference. He was Co-Investigator on Design in Action, one the AHRC's Knowledge Exchange Hubs. He is Senior Research Fellow at Gray's School of Art.