The Delft Design for Values (DDFV) Institute works on addressing the grand challenges of the 21st century by means of responsible innovation. This requires pro-actively addressing relevant moral and social values already in the design phase of new technologies, services, spaces, businesses, and institutions.

There are several reasons for adopting the DDFV approach: (1) the avoidance of technology rejection due to a mismatch with the values of users or society, (2) the improvement of technologies/design by embodying these values, and (3) the generation or stimulation of values in users through design.

DDFV is the portal and booster of Design for Values research and education at Delft University of Technology. It aims at intensifying internal and external collaborations in the area and making visible what our university has to offer as a major partner in the debate on/implementation of design for values.
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Preface

The Delft Design for Values (DDFV) Institute started in 2017, after two years of explorative meetings with all parties involved, as the 9th research institute of Delft University of Technology. The research institutes are meant to raise TU Delft’s profile in a promising area of strength by clustering of high-quality research capacity. This puts TU Delft in a better position to join national and international consortia and networks, and also makes the university more attractive to top scientific talent. The TU Delft Institutes are headed by internationally renowned TU Delft scientists.¹

It is our vision that Design for Values is:

- **Necessary** for innovation in the 21th century, in order to get innovations socially accepted and to make them morally acceptable. Although this is true worldwide, it seems in particular true in Europe where a number of new technologies, like for example genetic modification, have met with public resistance which has led to innovation failure.

- **An opportunity**. It is an opportunity for Europe to take the lead in innovation and design that are not only technically advanced but also socially and morally acceptable. Europe’s ambition to do so is for example witnessed by the prominent place that the EU has given to Responsible Research and Innovation (RRI) in its Horizon 2020 framework programme, where it is an important cross-cutting theme. It is also an opportunity for TU Delft as we have the expertise in engineering, design, social sciences and humanities to assume a leading role in Design for Values worldwide.

- **Part of the mission of TU Delft**. It is TU Delft’s mission “to make a significant contribution towards a sustainable society” and to train “scientists and engineers with a genuine commitment to society” in order to contribute to “technological innovations with both economic and social value”. We believe that Design for Values is essential to achieve this mission and that all TU Delft engineers and students should be able to design for values and account to society how they did so.

This annual report documents what has happened in the first year of the existence of the institute.

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¹ See [https://www.tudelft.nl/en/research/organisation/thematic-cooperation/research-institutes-tu-delft-institutes/](https://www.tudelft.nl/en/research/organisation/thematic-cooperation/research-institutes-tu-delft-institutes/)
Introduction

The Delft Design for Values (DDFV) Institute started in the beginning 2017, officially in January and effectively in March. This concluded a two years period of explorative meetings in which the initiators of the institute met all over the TU Delft with the Executive Board, Deans, Chairs of Departments and numerous researchers. The year 2017 became thus the year in which the institute's initiators started to translate their vision into an actual organization and action.

Progress in the creation of the organization and action of the institute focused on:

- Setting up in the governance structure of the DDFV institute and organizing its office (chapter 1);
- Organizing an internal kick-off meeting to create a shared research agenda, plus several 'playground meetings' for bringing together the researchers from the participating faculties (chapter 2);
- Financing seed projects for creating and facilitating joint projects between researchers from the participating faculties (chapter 3).

Our ambitions in reaching out with the DDFV Institute towards third parties outside the TU Delft were scaled-down for the first year and involved:

- Carrying out first DDFV research consultancy projects (chapter 3);
- Launching the DDFV website (chapter 4);
- Creating project management for communication and acquisition (chapter 1)

The DDFV Institute's second year, 2018, will be directed to this reaching out.
1. **Organisation and governance**

**Founding faculties & supervisory board**
The DDFV Institute was founded by four faculties of Delft University of Technology:

- Faculty of Architecture & the Built Environment (BK)
- Faculty of Electrical Engineering, Mathematics & Computer Science (EEMCS)
- Faculty of Industrial Design Engineering (IDE)
- Faculty of Technology, Policy & Management (TPM)

The rector of TU Delft and the Deans of these faculties together formed the supervisory board. Its main role is to ensure that the Institute’s strategy, and policies are in line, and or complementary to, the interests of the university and the specific faculties. The supervisory board approves the Institute’s long term strategy, and updates thereof, and periodically evaluates the Institute’s performance and impact.

**Executive Board**
In 2017 the DDFV Institute was managed by a board of directors consisting of representatives of each of the four founding faculties:

- Prof. Dr. Carola Hein, BK
- Prof. Dr. Catholijn Jonker, EEMCS
- Prof. Dr. Jeroen van den Hoven, TPM (scientific director, 0.1 fte)
- Prof. Dr. Paul Hekkert, IDE
- Dr. Pieter Vermaas, TPM (vice director)
- Dr. Virginia Dignum, TPM (executive director, 0.3 fte)

The scientific director holds final responsibility for governing and managing the DDFV Institute and acts as the main spokesperson. The executive director is responsible for all day-to-day activities of the centre and supervises the Institute’s support organization. Strategic and operational decisions are made in consultation between the executive and scientific director.

**Researchers**
We had 36 researchers, coming from all four faculties, participating in the opening event of the DDFV Institute. More researchers have since participated in further activities of the institute, such as playground meetings and seed projects (see chapters 2 and 3).

**Support staff**
The DDFV Institute is supported by a secretary (0.2 fte) and occasional support for dedicated projects. At the end of 2017 it was decided that extra and more structural
support staff is needed to realize the ambitions of the DDFV Institute. Two project managers were hired, who will start in the beginning of 2018:

- Dr. ir. Ilse Oosterlaken (0,3 fte) for valorization, business development and external communication. She is a former PhD student and postdoc from the TPM Department of Values and Technology.
- M. Eng. Linda Rindertsma (0,2 fte) for community building and internal communication. She is a graduate from the IDE master program.

**Partner organizations**

In 2017 the DDFV Institute received generous financial support (see chapter 5) from the Gilles Hondius Foundation. This foundation was established in March 2004 with the aim of promoting the arts and scientific research. The Scientific Director meets annually with the Gilles Hondius Foundations to give an update on the institute's progress and discuss which specific project(s) the Gilles Hondius Foundations supports.
2. Activities

Kick-off meeting
On 24 March 2017 an internal kick-off meeting for TU Delft researchers took place. We had 36 participants, with people coming from each of the four founding faculties. The meeting was scheduled in four blocks:

- **Informing people:** participants were informed about the overall goals and plans of the DDFV Institute, and four executive board members from four faculties each introduced one of the four research themes (value operationalisation, assessment, dynamics and conflicts)
- **Meeting people:** participants had a chance to get to know each other's views on 'design for values' through a collective 'mind map' exercise.
- **Challenging people:** participants were asked to brainstorm in groups about the need for design for values of external stakeholders and possible projects that could be formulated to meet those needs.
- **Generating ideas:** In a final session people were asked about their ideas, hopes and wishes with regard to the DDFV Institute.

The meeting was a good start for internal community building.
Playground meetings

Playground meetings are our informal lunch meetings for discussing DDFV projects, plans and challenges. They rotate between the four DDFV faculties. Five playground meetings were organized in 2017:

- 6 July 2017 at IDE
- 12 September 2017 at BK
- 10 October 2017 at EEMCS (theme: “Design for living with Artificial Intelligence”)
- 14 November 2017 at TPM
- 12 December 2017 at IDE (theme: “How are values incorporated in your research?”)

The number of participants varied from 8 to 15 persons. At each meeting two or three researchers kicked of discussion and exchange through a short research pitch.
3. Projects

Seed projects

The DDFV Institute put out a call for proposals for seed projects. The aim of this subsidy program is to stimulate cooperation across groups towards more synergy and increase the visibility, awareness and outreach of Design for Values activities. Examples of activities that can be funded include, but are not limited to: workshops and seminars, development of proof of concept experiments, or international visits. Since one of the aims of the Institute is to stimulate cross-faculty collaboration, a key demand is that projects have to involve researchers from at least two of the four founding faculties.

Four project proposals were received and funded (see table). This funding has been made possible through the generous support of the Gilles Hondius Foundation. For more information on the projects we refer to the respective web pages mentioned in the footnotes. All projects have started up in 2017, although their outputs – such as events and grant proposals – are mostly expected only in 2018. An exception is the project on urban imagery; The coordinators already organized two workshops, involved a foreign scholar in their work and wrote a grant application. See appendix A for a more detailed report.

<table>
<thead>
<tr>
<th>Project</th>
<th>Faculties</th>
<th>People</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Values and the design of housing systems²</td>
<td>BK &amp; TPM</td>
<td>Behnam Taebi (TPM) and Marja Elsinga (BK)</td>
<td>€7.000</td>
</tr>
<tr>
<td>Designing Artificial Advice Givers that Consider Perspective and Affect in Reasoning³</td>
<td>TPM &amp; EEMCS</td>
<td>Nava Tintarev (EWI) and Mark Alvano (TPM)</td>
<td>€7.000</td>
</tr>
<tr>
<td>Time Travel through Urban Imagery: 3D Virtual Modeling for Value Assessment in Heritage Debates⁴</td>
<td>EEMSC &amp; BK</td>
<td>Everhard Korthals-Altes and Hugo Ledoux (BK) and Jan van Gemert and Geert-Jan Houben (EEMCS)</td>
<td>€7.000</td>
</tr>
<tr>
<td>Research through Design for Values⁵</td>
<td>IDE &amp; BK</td>
<td>Ingrid Mulder , Elisa Giaccardi, Pieter Jan Stappers, Elvin Karana &amp; Kasper Jansen (IDE) and Clarine van Oel &amp; Martin Tenpierik (BK)</td>
<td>€7.000</td>
</tr>
</tbody>
</table>

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² [http://designforvalues.tudelft.nl/projects/values-design-housing-systems/](http://designforvalues.tudelft.nl/projects/values-design-housing-systems/)
³ [http://designforvalues.tudelft.nl/projects/designing-artificial-advice-givers-perspective-affect](http://designforvalues.tudelft.nl/projects/designing-artificial-advice-givers-perspective-affect)
⁴ [http://designforvalues.tudelft.nl/projects/research-design-values/](http://designforvalues.tudelft.nl/projects/research-design-values/)
Research consultancy
Two research consultancy projects were executed in 2017:

- **More Value-Sensitive Innovations in Disposal of the Dead**\(^6\); Researchers from the DDFV Institute have written a report with a framework to assess the moral acceptability of innovations in the disposal of the dead. A wide range of relevant values have been identified and operationalized, which can also be used to further improve the (design of) the innovations in question. The project was done on request of the Dutch Ministry of the Interior and Kingdom Relations.

- **(Online) Deliberation Procedure for the G1000 in Rotterdam**\(^7\); In October 2017 a big citizen summit took place in the city of Rotterdam to discuss dilemmas that this multicultural city is facing with regard to peacefully living together. A team from the DDFV Institute developed the deliberative procedure for this event, making use of a Massive Open Online Deliberation Platform (MOOD) that has been developed in Delft. With this tool participants can initiate a debate, discuss issues and support policy makers in an open and free deliberation environment.

A third research consultancy project was acquired and scheduled to be carried out in 2018, namely a project on **Micro-Targeting and Digital Platforms in Election Time**\(^8\). The design of digital platforms shapes the public space that is at the basis of our democracy. With a grant from the Dutch State Committee on Reforming the Parliamentary System (Staatscommissie voor Hervorming van het Parlementair Stelsel) researchers from TU Delft will be investigating the possibilities that digital platforms offer for micro-targeting potential voters.

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\(^7\) [http://designforvalues.tudelft.nl/projects/massive-open-online-deliberation-platform/](http://designforvalues.tudelft.nl/projects/massive-open-online-deliberation-platform/)

4. PR and Communication

DDFV Website
At the start of 2017 (web) design agency IdeeVormers was hired to design a logo and build a basic website for the DDFV Institute. The website is hosted on a sub-domain of the main TU Delft website (designforvalues.tudelft.nl), but has its own Wordpress installation to create optimal flexibility to meet the needs of the institute as it further develops in the years to come.

After the launch early 2017 Ilse Oosterlaken, who in February 2018 started as one of the DDFV project managers (see chapter 1), was hired as a freelancer to further develop the structure and functionalities of and contents for the website. Examples of what was added are:

- Extensive information on the Handbook of Ethics, Values and Technological Design, which DDFV researchers edited
- An overview of MOOCs that TU Delft offers in the area of design for values and the broader field of responsible innovation
• A directory of researchers at TU Delft working in the area of design for values

The site is thus starting to fulfill its function of promoting design for values and making work in this area accessible for anyone interested. In the course of 2018 the site will further be expanded.

**Other communication means**

**Mailing list**

A mailing list was created in 2016 with the addresses of interested TU Delft researchers from the four faculties involved. Four newsletters were sent out in 2017, sharing information on the playground meetings (see chapter 2) and the seeding project opportunity (see chapter 3), as well as relevant information from DDFV members (such as calls for papers).

**Twitter**

A twitter account was also created for the DDFV Institute. As of early April 2018 it has 56 followers and 9 tweets were sent in 2017. In 2017 it was thus not so actively used yet, but this will change in 2018 due to the start of the new project managers.
5. **Finances**

**Budget**
The TU Delft budget for 2017 and the following four years had been established as below. By the support of the Gilles Hondius Foundation this budget could be raised with 25 k€ annually.

Financial commitments:
- 25 k€ per Faculty for 5 years
- matching of 100 k€ by TU Delft board for 5 years

After 3 years, there will be a mid-term evaluation.

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
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<td>Scientific director (0.1 fte)</td>
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<td>Executive director (0.2 fte)</td>
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<tr>
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<td>Visiting scholars</td>
<td>15</td>
<td>10</td>
<td>10</td>
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<tr>
<td>Yearly event/exhibition</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
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<tr>
<td>Master classes</td>
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<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Acquisition</td>
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<tr>
<td>Strategic funds</td>
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<tr>
<td>Website and PR</td>
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<td>30</td>
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<tr>
<td>International meeting DIV centres</td>
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<td></td>
<td></td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>MOOC and ProfEd development</td>
<td></td>
<td>20</td>
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<td><strong>Total</strong></td>
<td>200</td>
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</table>
## Spending

Income in 2017 (in k€)

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<th>Participating Faculties</th>
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<td>TU Delft Board</td>
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<tr>
<td>Gilles Hondius Foundation</td>
<td>25,0</td>
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<tr>
<td><strong>Total</strong></td>
<td>225,0</td>
</tr>
</tbody>
</table>

## Expenses in 2017 (in k€)

| Scientific director            | 22,2  |
| Executive director             | 4,8   |
| Management support             | 18,2  |
| Visiting Scholar               | -     |
| Yearly event/exhibition        | 7,0   |
| Master classes                 | -     |
| Acquisition                    | 9,0   |
| Strategic funds                | 38,3  |
| Website and PR                 | 30,0  |
| International meeting DFV centres | -     |
| MOOC and ProfEd development    | -     |
| Costs for running projects     | 27,6  |
| Running costs                  | 3,6   |
| **Total**                      | 160,7 |
Appendix A – Seed project ‘Time Travel through Urban Imagery’

Full project name:
Time Travel through Urban Imagery:
3D Virtual Modeling for Value Assessment in Heritage Debates

Project participants
- Everhard Korthals-Altes (BK),
- Jan van Gemert (EWI)
- Geert-Jan Houben (EWI)
- Hugo Ledoux (BK)

Progress report by participants
We are very grateful for the support by the DDFV Institute and the Gilles Hondius Foundation, which allowed us to move ahead with our research in several ways.

We submitted a NICAS grant application with several outside partners, which unfortunately was not granted. We also became part of a consortium that submitted an FET Flagship grant entitled Time Machine that aims to develop large-scale digitization and computing infrastructure to create Big Data of the Past. The goal is to transform kilometers of archives, large collections from museums and other geo-historical datasets into a distributed digital information system. The resulting knowledge graph will allow for the large scale semantic linking of data from European archives that facilitates new research and eventually could enhance the knowledge of the past in an unprecedented way.

In conjunction with these various grant applications, we organized two Digital Humanities workshops, one in December 2017 and one in January 2018. In December, David Bodenhamer from The Polis Center of Indiana University—Purdue University Indianapolis worked with us on the topic of Spatial Humanities and the various ways of mapping historical information. During the workshop we explored the added value of visualizing spatial information and learned about the ways this can help to gain new insights into already known contexts.

In January 2018, Jean-Luc Pinol from the École Normale Supérieure de Lyon, who is also involved in the Time Machine project with a focus on Paris, worked with us on the specific case of visualizing and mapping historical information of different epochs of Paris. We investigated how historical events are intertwined with social and architectural conditions and how mapping can help to reveal these connections. Both workshops were well received and attracted guests from TU Delft and other institutions.

Moreover, we hired a research assistant who helped doing research on projects with a similar approach and on freely accessible historical geographic data. This allowed us to
gain a better orientation within this emerging field of research. The contacts established are currently being intensified and will lead to new research initiatives and grant applications. As a beginning, a meeting with researchers from TU Dresden is scheduled for June 2018. Their project focuses on the development of virtual 3D reconstructions from historical images and we are positive to continue our research within the framework of cooperation with these and other partners. Finally, we are preparing further grant proposals based on the knowledge and insights gained.