

## The Delft legacy of Adding Value by CREM

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# Dear is durable

A red, reflective sphere is positioned in the center of the frame, appearing to float just above a series of concentric, glowing white ripples that emanate from its base. The background is a deep, solid blue. The ripples create a sense of depth and movement, suggesting the sphere is about to touch or has just touched the surface.

**Liber Amicorum for Hans de Jonge**

## **Liber Amicorum for Hans de Jonge**

# **Dear is durable**

Presented on 30 September 2016  
at the farewell of Hans de Jonge as professor of  
Real Estate Management and Development  
at the Faculty of Architecture of the  
Delft University of Technology

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# The Delft legacy of Adding Value by CREM

Theo van der Voordt

## Pioneering in adding value by corporate real estate

In the late nineties Hans de Jonge presented a key note on possible added values of Corporate Real Estate at a EuroFM meeting in Rotterdam and a similar key note at a conference of the Dutch Study Centre NSC. He discussed seven ways to add value to an organisation by appropriate real estate: increasing productivity, reducing costs, facilitating flexibility, increasing the value of assets, controlling risk, supporting organisational culture and enhancing marketing/PR. His presentations were in line with a paper by Nourse and Roulac (1993) about *Linking real estate decisions to corporate strategy*. In this paper the authors presented a list of eight “alternative real estate strategies”:

1. Occupancy cost minimisation
2. Flexibility
3. Promote human resources objectives
4. Promote marketing message
5. Promote sales and selling process
6. Facilitate and control production, operations and service delivery
7. Facilitate managerial process and knowledge work
8. Capture the real estate value creation of business



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**The ongoing research on Added Value provides more evidence on how CREM and FM can add value to organisations and their primary processes and opens the black box of input -> throughput -> output -> outcome -> impact/ added value.**

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## Follow-up

The presentation by Hans led to a fierce debate and inspired many researchers to work on this topic. Quite soon after Hans' presentations a first Delft scientific paper was published in 1998, entitled *Managing Key Resources and Capabilities: Pinpointing the Added Value of Corporate Real Estate Management*, by PhD candidate Peter Krumm and his promoters Hans de Jonge and Geert Dewulf. In 2007 Jackie de Vries finished

her PhD thesis on possible contributions of real estate to the performance of Dutch Universities of Applied Science, under Hans' supervision and with myself being her co-promotor. Hans was also one of the interviewed experts who gave input to the PhD research of Anna- Liisa Lindholm (2008) in Finland on *Identifying and measuring the success of corporate real estate management*. Alexandra den Heijer worked on adding value by real estate in joint research projects with universities for over ten years. This resulted in 2011 in her PhD thesis on *Managing the University Campus*, with Hugo Priemus being her promotor and me the co-promotor. Later on Hans and I jointly supervised Chaiwat Riratanaphong (2014) on *Performance Measurement of Workplace Change in two different Cultural Contexts*, and Johan van der Zwart (2014) on *Building for a Better Hospital: Value Adding Management and Design of Health care Real Estate*. These PhD projects elaborated the lists of possible added values of corporate real estate and developed conceptual frameworks to explore the relationships between input (human resources, capital, information, technology, real estate and other facilities), throughput (processes) and output (changed organisational performance).

In 2009 I met Per Anker Jensen at the European Facility Management Conference in Amsterdam. Per Anker Jensen is professor of Facilities Management at the Technical University of Denmark. Before that he worked a long time as an FM practitioner. He had initiated a project on Added Value when he was the chairman of the Research Network Group (RNG) of EuroFM in 2007-2008 and started a EuroFM research group on Added Value of FM in 2009. I immediately decided to join this group. In 2012 the group produced an Anthology on the Added Value of FM in 2012. As a co-editor of this book I tried to incorporate all "Delft" knowledge about the added value of CREM. Our collaboration generated a number of other publications on adding value by CREM and FM. The collaboration was very fruitful and resulted in a second book on FM and CREM as Value Drivers (2016).

The next table presents an overview of the Delft legacy in building a body of knowledge on the added value of real estate and other physical resources and services.

#### Legacy of Hans de Jonge and his team regarding adding value by CREM and FM

- 1996 | De Jonge The added value of corporate real estate ('De toegevoegde waarde van concernhuisvesting'). Paper presented at the Dutch Study Centre (NSC) Conference, 15 October 1996.
- 1998 | Krumm, Dewulf & De Jonge "Managing Key Resources and Capabilities: Pinpointing the Added Value of Corporate Real Estate Management." *Facilities* 16(12), 372-379.
- 2000 | Dewulf, Krumm & De Jonge, *Successful Corporate Real Estate Strategies*. Nieuwegein: Arko Publishers
- 2002 | Van der Schaaf, *Public Real Estate Management Challenges for Governments. An International Comparison of Public Real Estate Strategies*. PhD thesis.
- 2002 | De Jonge, The development of CREM ('De ontwikkeling van Corporate Real Estate Management'). *Real Estate Magazine*, 22, 8-12.
- 2003 | Krumm & De Vries, "Value Creation through Management of Real Estate". *Journal of Property Investment and Finance*, 21, 61-72.
- 2007 | De Vries, *Performance through Real Estate ('Presteren door vastgoed')*. PhD thesis.
- 2008 | De Vries, De Jonge & Van der Voordt, "Impact of Real Estate Interventions on Organisational Performance". *Journal of Corporate Real Estate* 10(3), 208-223.
- 2009 | Koppels, Remøy & De Jonge, "The Economic Value of Image". *PropertyNL Research Quarterly* 8(3), 31-38.
- 2010 | Jensen & Van der Voordt et al., "The Added Value of FM: Different Research Perspectives". Conference paper EFMC2010, Madrid.
- 2011 | Den Heijer, *Managing the University Campus. Information to Support Real Estate Decisions*. PhD thesis.
- 2011 | Prevosth & Van der Voordt, *The Added Value of FM: concepts, interventions, and priorities in the health care sector*. FMN report, in Dutch.
- 2012 | Jensen, Van der Voordt & Coenen (eds), *The Added Value of Facilities Management. Concepts, Findings and Perspectives*. With contributions by Hans de Jonge, Alexandra den Heijer, Chaiwat Riratanaphong, Theo van der Voordt and Johan Van der Zwart. Lyngby: Polyteknisk Forlag
- 2012 | Jensen & Van der Voordt et al., "In Search for the Added Value of FM: What we know and what we need to learn". *Facilities*, 30(5/6), 199-217. Lyngby: Polyteknisk Forlag

2013 | Jensen, Van der Voordt et al., "How can Facilities Management add value to organisations as well as to society?" Conference paper CIB World Building Congress, Brisbane.

2013 | Van der Zwart & Van der Voordt, "Value Adding Management of Hospital Real Estate. Balancing Different Stakeholders' Perspectives". (E)Hospital 3(13), 15-17.

2014 | Jensen & Van der Voordt et al., "Reflecting on Future Research concerning the Added Value of FM". Facilities 32(13/14), 856-870.

2014 | Van der Voordt & Jensen, "Adding value by FM: Exploration of Management Practice in the Netherlands and Denmark". Conference paper EFMC2014, Berlin.

2014 | Jylhä \* & Junnila, "The State of Value Creation in the Real-estate Sector. Lessons from Lean Thinking". Property Management 32(1), 28-47.

2014 | Riratanaphong, Performance Measurement of Workplace Change in Two Different Cultural Contexts. PhD thesis.

2014 | Riratanaphong & Van der Voordt, "Measuring the Added Value of Workplace Change. Comparison between Theory and Practice". Conference paper CIB Facilities Management Conference, Copenhagen.

2014 | Van der Zwart, Building for a Better Hospital. Value-adding Management & Design of Healthcare Real Estate. PhD-thesis.

2015 | Van der Zwart & Van der Voordt, "Adding value by Hospital Real Estate. An exploration of Dutch practice". Health Environments Research & Design Journal 9(2), 52-68.

2015 | Jensen & Van der Voordt, "How can FM Create Value to Organisations? A Critical Review of Papers from EuroFM Research Symposia 2013-2015". Conference paper EFMC2015 and EuroFM report.

2016 | Van der Voordt, "Adding Value by Health Care Real Estate: Parameters, Priorities, and Interventions". Journal of Corporate real Estate 18( 2), 145-159.

2016 | Jensen & Van der Voordt, 2016, Facilities Management and Corporate Real Estate Management as Value Drivers: How to Manage and Measure Adding Value. With contributions by Hilde Remøy, Aart Hordijk, Rob Geraedts, Juriaan van Meel, Theo van der Voordt, Sandra Brunia (CfPB) and Iris de Been (CfPB). London/New York: Routledge/Taylor & Francis Group

\* Staff member of Hans de Jonge since 2016.

## Lessons learned

Corporate Real Estate Management is slowly but clearly shifting from perceiving real estate as a necessary burden and a focus on cost reduction towards a growing interest in the benefits of real estate for business purposes. The ongoing research into the added value of real estate and other facilities and services has shown that it is rather difficult to "prove" cause-effect relationships between corporate or public real estate interventions and organisational performance, due to the many influencing factors. Usually an intervention in corporate real estate goes hand in hand with other changes, both internal (e.g. organisational change, new ways of working, different management style) and external (changes in the labour market, economy, legislation, real estate market and so on).

This does not mean that we should give up to collect evidence on the impact of corporate and public real estate on the performance of organisations as a whole, business units, teams, and individual employees. The Eastern story about a drunk who was searching his keys on a different place than where he thought he lost them "because here shines the light" is funny, but we need to search for information that is relevant from both an academic point of view and for decision-makers in practice, even if it feels like searching in the dark. Fortunately many researchers took the effort and still do. From their efforts many interesting findings came to the fore.

### *Definition of Added Value / Adding Value*

De Vries (2007) and Den Heijer (2011) defined the added value of real estate as the contribution of real estate to organisational performance and the attainment of organisational objectives from a point of view of different stakeholders. In this definition, cost reduction is perceived as one of the possible added values of real estate interventions. Jensen & Van der Voordt et al. (2012) position the investment and running costs of interventions at the input side and cost reduction at the output



side. They define added value as “the trade-off between the benefits and the costs and risks to achieve these benefits”. In addition to added value, the more active verb “adding value” is being used as well, emphasizing that adding value is a (continuous) process that has to be managed effectively and efficiently.

#### *Adding value for whom?*

Whereas most publications do not explicitly discuss who profits of the benefits and who has to pay the bill, various publications link added values explicitly to various stakeholders. In the NEN-EN 15.221 a distinction is made between the clients, customers and end users. De Vries (2007) mentioned various stakeholders as well, whereas Den Heijer (2011) linked a number of different added values to four stakeholder perspectives: policy makers (strategic value), controllers (financial value), technical managers (sustainability) and the end users (functional value). In the PhD work of Lindholm, the focus was on shareholder value.

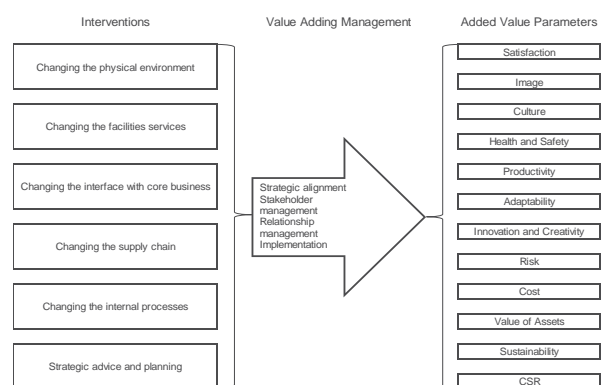
#### *Multi-dimensionality of adding value*

Over the years different value types have been presented and assessed by a review of the literature, analysis of documents and interviewing relevant stakeholders. De Jonge (1996) started with a list of seven value parameters. De Vries extended this list by adding increasing employee satisfaction as another possible added value of CRE. Den Heijer (2011) added sustainability to the list and split and/or renamed various other value parameters, coming up with a list of 14 different added values (see her contribution on campus management to this Liber Amicorum). Riratanaphong (2014) and Van der Zwart (2014) compared various lists of value parameters and in the end defined their own lists as well.

Based on interviews with practitioners in Denmark and the Netherlands and various case studies Per Anker Jensen and I found that in practice, too, many different terms

are used to express possible added values of CRE. Instead of productivity terms such as “contributing to business” or “supporting business activities” are used. Instead of employee satisfaction related values such as “well-being” are used, or – closer to business objectives – attracting and retaining employees, in connection to the “war on talent”.

Apparently, the lists of ways to add value change over time and no consensus exists yet about which parameters are key and which terms represent various value parameters most appropriate. Based on a sound comparison of many lists, Jensen, Van der Voordt & al. (2016) analysed all lists so far and came up with a list of 12 parameters.



12 value parameters mentioned by Per Anker Jensen & Theo van der Voordt (2016)

### Clustering of added value parameters

The lack of consensus also holds true regarding how to cluster different values into a few key categories. De Vries (2007) summarised all influences of real estate on organisational performance in three main indicators: productivity, profitability and competitive advantage. Den Heijer (2011) added a fourth key value i.e. sustainability. Furthermore she linked the four types of values to four organisational objectives and related stakeholders:

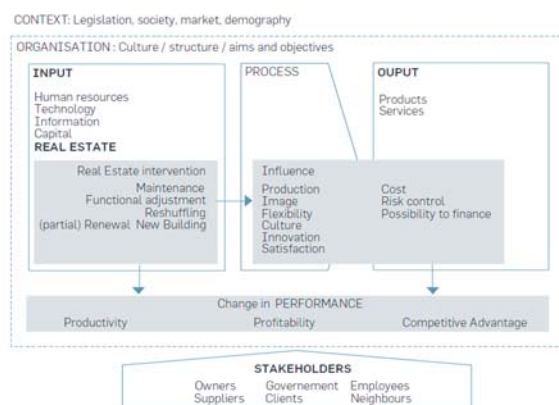
- productivity <-> functional goals / end users;
- profitability <-> financial goals / controllers;
- competitive advantage <-> strategic goals / policy makers;
- sustainability <-> physical goals / technical managers.



Riratanaphong clustered the values mentioned by different authors into six categories according to Bradley (2002): stakeholder perception, financial health, organisational development, productivity, environmental responsibility, and cost efficiency. Jensen, Van der Voordt et al. (2012) found over 50 different definitions of added value. Based on a content analysis they detected six types of added value: 1) use value (quality in relation to the needs and preferences of the users); 2) customer user value (trade-off between benefits and costs for the users); 3) economic, financial or exchange value (the economic trade-off between costs and benefits); 4) social value (e.g. supporting positive social interaction or reinforcing social identity); 5) environmental value (Green FM, environmental impact of FM); and 6) relationship value (e.g. getting high-quality services or experiencing a special treatment).

### *Input-throughput-output-outcome*

De Vries (2007) presented a conceptual model that shows both direct and indirect influences of real estate on organisational performance. This model is based on the well-known triplet of input-throughput-output. Den Heijer (2011) used a similar approach.



Conceptual framework by Jackie de Vries (2007)

In the new book edited by Per Anker Jensen and Theo van de Voordt a distinction is made between output, defined as a change in CRE performance, and outcome, a change in organisational performance. An improvement in facilities performance is perceived to add value to the organisation if this fits with the organisational objectives. Not every positive output adds value to the organisation.

When for instance the energy performance improves from level C to level A whereas the organisation is completely satisfied with level B, the shift from level B to level A does not have added value for the organisation (though it does add value to society!).

### **Real Estate Norm**

The emphasis on a check of the aimed real estate performance in connection to the aimed organisational performance is in line with the distinction between the required performance of real estate (demand) and the actual performance of real estate (supply) in the so-called Real Estate Norm® (REN). The REN is a systemized assessment method that enables objective discussion about the performance of real estate at each phase of the life cycle of existing or new to build real estate, whether leased or owned. It is based on a list of clear and measurable definitions from the perspective of the building user/occupant. It enables decision-makers to compare their demand profile with the supply profile to ensure that the occupants needs and expectations are continuously being met and to avoid over- or underperformance. The REN was initiated in the early nineties of the last century by real estate broker Zadelhoff Makelaars (now: DTZ Zadelhoff/Cushman & Wakefield), project management organisation Starke Diekstra (now: Arcadis Netherlands) and real estate consultants Jones Lang Wootton (now: Jones Lang LaSalle). René Stevens and the late Frans Diekstra were the main founding fathers. Hans de Jonge was strongly involved in the development and dissemination of REN as well. Recently René Stevens took the initiative to upgrade the REN in order to harmonise the REN with current standards on usability of buildings.

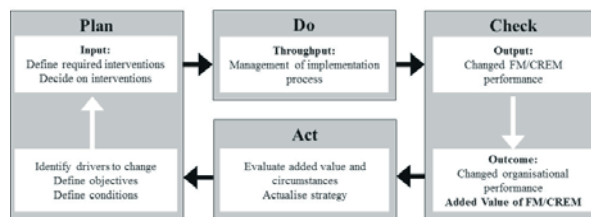
## From added value to value adding management

To support decision-makers in adding value through real estates and to make the insights from research more instrumental and applicable, Hoendervanger, Bergsma, Jensen and Van der Voordt (2016) developed a Value Adding Management process model that follows the well-known Plan-Do-Check-Act cycle. The interventions are linked to resources or “means”, whereas the output and outcome refer to the “ends”. In the new book by Jensen and Van der Voordt on FM and CREM as Value Drivers, this model is elaborated step-by-step and connected to a number of decision-support tools.

### Need for further research

The ongoing research on Added Value provides more and more evidence on how CREM and FM can add value to organisations and their primary processes. It has opened the black box of input -> throughput -> output -> outcome -> impact/added value by providing a taxonomy of different CRE interventions, exploring the process of aligning facilities to corporate strategies, defining various value parameters, and connecting all kind of CRE and FM interventions to expected or attained outcomes. Knowing the costs and benefits of different interventions can support decision makers to find solutions that provide value for money and fit with the different needs, preferences and conditions of all stakeholders.

However, there is still a lot to do. There is a lack of integrated analyses including all possible benefits and sacrifices (time, money, risks) and which stakeholders benefit most and least of particular interventions. The number of sound pre- and post-change evaluations is rather



Value Adding Management Model by Jan Gerard Hoendervanger, Feike Bergsma, Theo van der Voordt and Per Anker Jensen (2016)

limited. Not all research builds clearly and cumulatively of existing research. A further harmonisation in definitions and terminology is needed to be able to compare research findings and to enhance the benchmarking of the outcomes of different CRE interventions. Even more important is a further elaboration of clear definitions and operationalisations of different value parameter, to make each value measurable and manageable, to explore which building characteristics and facilities may contribute to it, and how a changing context may influence the most appropriate interventions and (aimed) output and outcomes. Existing tools to measure different value parameters need to be improved as well, for instance tools to measure the impact of CRE on productivity, creativity and innovations.

### Concluding remark

“What if” questions are usually like reading tea-leaves. We will never know what would have happened if Hans de Jonge hadn’t discussed “his” seven added values of corporate real estate in the mid-nineties. However, it is crystal clear that his views have stimulated many researchers and in particularly his own staff members to further elaborate, rephrase and extend the list of seven values, to work on clear conceptual frameworks, to collect empirical evidence about the impact of different design choices and CRE interventions, and to develop ways to measure and Key Performance Indicators that can be used in practice. All these achievements can be used as input to complex decision-making processes. As many other contributions to this Liber Amicorum have shown as well: the added value of Hans de Jonge is beyond dispute.

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# Facilities Management and Corporate Real Estate Management as Value Drivers

How to Manage and Measure Adding Value

Edited by Per Anker Jensen  
and Theo van der Voordt



The new book on “FM and CREM as Value Drivers: how to manage and measure adding value” by Per Anker Jensen and Theo van der Voordt (eds.) discusses six types of interventions and 12 added value parameters and presents state of the art theory, data and Key performance Indicators for each of these parameters.