NOW HIRING

WANTED: USER OF TOMORROW FOR SPACE OF THE FUTURE

A management decision support system for the value-add and core-plus office investor to determine the future use of vacant offices

Jeanne Borst, Hilde Remøy & Philip Koppels ERES 2014
PROBLEM AREA

REAL ESTATE STOCK

PORTFOLIO INVESTOR

OWNER: Investor 1
- Indirect / Direct Return on investment
- Risk
- Non-financial objectives

USER: Company
- Value in use
- Perceived Fitness For Use

(NEW) DEVELOPMENT: External initiator

WITHIN USE ADAPTATION (TEMPORAL) CONVERSION

(partly) vacant offices

Acquisition

Disposal
INTRODUCTION | CONCEPTUAL MODEL

OFFICE PORTFOLIO OF INVESTOR

Based on category: review of the portfolio and object, and defining forecast and strategy

Based on score of ‘Within Use Adaptation’ and ‘Conversion’:
Selection of best alternative object strategy

FUTURE USE OF (PARTLY) VACANT BUILDING
REAL ESTATE MARKET

- Depreciation of office buildings
- Structural change in real estate market
- Strong negotiating power of tenant
- Change of strategy of investors
COSTS OF VACANCY

- Vacancy costs consist of constant and variable costs
- Turning point from negative to a positive direct return is an occupancy rate of ca. 30%

<table>
<thead>
<tr>
<th>OCCUPANCY RATE</th>
<th>VACANCY COSTS</th>
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</thead>
<tbody>
<tr>
<td>0.00%</td>
<td>(€ 200,000.00)</td>
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<td>10.00%</td>
<td>(€ 100,000.00)</td>
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<td>20.00%</td>
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<td>30.00%</td>
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<td>100.00%</td>
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### DELPHI STUDY

- Three partial Delphi studies:
  - Fitness For Use
  - Within Use Adaptation
  - Conversion

- Determining criteria based on:
  - Literature study
  - Consultation with experts
  - Consultation NSI

- Weighting of selected criteria:
  - Market level
  - Location & Building level

- Two rounds

#### DELPHI PANEL 1 Fitness For Use

<table>
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<th>Expertise</th>
<th>Count</th>
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<td>Academics</td>
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<tr>
<td>Professor / PhD teacher at real estate related education</td>
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<tr>
<td>Practioners</td>
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<td>Asset management</td>
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<tr>
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<td>Project development</td>
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<tr>
<td>Governmental officials</td>
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<tr>
<td>Municipality</td>
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<td><strong>TOTAL</strong></td>
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</table>

#### DELPHI PANEL 2 Within Use Adaptation

<table>
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<tbody>
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<tr>
<td>Portfolio management</td>
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<td>Project development</td>
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<tr>
<td>Architects</td>
<td>2</td>
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<td><strong>TOTAL</strong></td>
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#### DELPHI PANEL 3 Conversion

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<td>Consultancy</td>
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<tr>
<td>Project development</td>
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<tr>
<td>Architects</td>
<td>2</td>
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<tr>
<td>Governmental officials</td>
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<tr>
<td>Municipality</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>9</strong></td>
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</table>
Panelstudie 1: Fitness for use

FACTOREN LOCATIE & GEBOUW

1. Geografische ligging: 6%
2. Bereikbaarheid openbaar vervoer: 24%
3. Bereikbaarheid met de auto: 8%
4. Concentratie structurele leegstand in de omgeving: 15%
5. Parkeergelegenheid: 6%
6. Voorzieningen in directe omgeving: 17%

1. Ruimtelijke en functionele kwaliteit van de omgeving: 0%
2. Bezettingsgraad-ontwikkeling: 1%
3. Identiteit en uitstraling van het gebouw: 0%
4. Functionele kwaliteit/flexibiliteit: 14%
5. Energie prestatie van het gebouw: 0%
6. Technische kwaliteit van het gebouw: 9%

Totaal

Pas wanneer u alle 100% heeft verdeeld en alle factoren zijn voorzien van een weging, kunt u rechts onderaan uw weging bevestigen.
DELPHI STUDY RESULTS

FITNESS FOR USE

Market level

Location and Building level
DELPHI STUDY RESULTS

FITNESS FOR USE

Market level

Location and Building level

Geographical location

Functional quality / flexibility

Identity and image of the building

Accessibility by public transport

Facilities in direct surrounding

Spatial and visual quality of the site

Parking facilities

Accessibility by car

Technical quality of the building

Occupancy development

Concentration structural vacancy in the surrounding

Energy performance of the building

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DELPHI STUDY RESULTS

WITHIN USE ADAPTATION

Market level

Location and Building level

Changing demand from target group
Lettability and competitive power
Financial possibilities
Occupancy development

Flexibility of the lay-out
Geographical location
Identity and image of the building
Technical quality of the building
Accessibility by car
Accessibility by public transport
Technical adaptability building elements
Parking facilities
Energy performance of the building
Concentration structural vacancy in the surrounding
Facilities in direct surrounding

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DELPHI STUDY RESULTS

WITHIN USE ADAPTATION

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Accessibility by car
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Accessibility by public transport
Technical adaptability building elements
Parking facilities
Energy performance of the building
Concentration structural vacancy in the surrounding
Facilities in direct surrounding

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DELPHI STUDY RESULTS

CONVERSION

Market level

Location and Building level

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DELPHI STUDY RESULTS

CONVERSION

Market level

Location and Building level

Geographical location

Flexibility of the lay-out

Accessibility by public transport

Spatial and visual quality of the site

Facilities in direct surrounding

Identity and image of the building

Accessibility by car

Parking facilities

Adaptability of the façade

Concentration structural vacancy in the surrounding

Technical quality of the building

Energy performance of the building

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DELPHI STUDY RESULTS

TOP 3

Location and Building level

<table>
<thead>
<tr>
<th>FITNESS FOR USE</th>
<th>WITHIN USE ADAPTATION</th>
<th>CONVERSION</th>
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<tbody>
<tr>
<td>Geographical location</td>
<td>Flexibility of the lay-out</td>
<td>Geographical location</td>
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<tr>
<td>Functional quality / flexibility</td>
<td>Geographical location</td>
<td>Flexibility of the lay-out</td>
</tr>
<tr>
<td>Identity and image of the building</td>
<td>Identity and image of the building</td>
<td>Accessibility by public transport</td>
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</table>
PREFERENCE MEASUREMENT

Scale score: 0, $S_i$, 100

$A_{\min}$, $A_i$, $A_{\max}$

Preference measurement alternative A - A..

Criteria: C, C, ...

Delphi Weighing: W, W, ...

Total 100%

Alternatives: A, A, ...

Scores: S, S, S, S, S, S, ...

Preference Rating: R, R, ...

Selecting the best alternative
MANAGEMENT DECISION SUPPORT SYSTEM (MDSS)

Fitness For Use

Mediocre  Promising

Deprived  Mediocre

Direct Return on Investment

Score Fitness For Use

Higher than score
Within Use Adaptation

Consolidation
- Check office market
- Market demand

Lower than score
Within Use Adaptation

Within Use Adaptation
- Check office market
- Market demand
2. MEDIocre FFU ↑ DROI ↓

EXAMPLE Within Use Adaptation
Oude Middenweg, Den Haag

Scores: FFU: 70,4 WJA: 75,8 CONV: 67,3
Main qualities:
- Accessibility by car;
- Parking facilities;
- Flexibility of the lay-out;
- Technical quality of the building.

1. PROMISING FFU ↑ DROI ↑

EXAMPLE Consolidation
Arthur van Schendelstraat, Utrecht

Scores: FFU: 87,9 WJA: 80 CONV: 83,3
Main qualities:
- Competitive power;
- Location city centre and station;
- Parking facilities;
- Facilities in direct surroundings.

4. DEPRIVED FFU ↓ DROI ↓

EXAMPLE Disposal
Volmerlaan, Rijswijk

Scores: FFU: 52 WJA: 52,3 CONV: 58,3
Main qualities:
- Location nearby city centre;
- Accessibility by car & public transport;
- Parking facilities.

3. MEDIocre FFU ↓ DROI ↑

EXAMPLE Conversion
Koningin Wilhelminaplein, Amsterdam

Scores: FFU: 50,8 WJA: 50,8 CONV: 60,9
Main qualities:
- Multi-functional location;
- Accessibility public transport;
- Accessibility by car;
- Spatial and visual quality.
CONCLUSION

>> Indication of the decision-making criteria and their relative importance of the office investor

>> Vacancy management enables insight in the qualitative and quantitative (mis-)match on portfolio level

>> The characteristics of the office building influence the decision-making for future use and financial performance

>> Based on the Delphi studies, buildings are compared and rated to describe the possibilities for different types of future use

>> A Management Decision Support System adds value to the current decision-making of the value-add and core-plus office investor by presenting different possible alternatives
RECOMMENDATION

>> **Supporting:**
   - detailed considerations on portfolio level for future use of offices;
   - hold/sell analysis;
   - investment decision-making;
   - forecasting.

>> Using the MDSS model in *daily practice*:
   - reflecting on the performance of the office portfolio by the whole team;
   - supporting discussion and strategy-making.

>> Making *implicit* decision-making criteria *explicit*
CONTACT

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Fitness For Use

Average Portfolio

Desired DROI

Direct Return on investment (DROI)

A_1, OR: .. %
WUA:...
CONV:...

Average Portfolio
**FITNESS FOR USE**

<table>
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<tr>
<th>Criteria</th>
<th>C₁</th>
<th>C₂</th>
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<td>9,6</td>
<td>7,1</td>
<td>4,9</td>
<td>8,1</td>
<td>8,5</td>
<td>8,5</td>
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<td>9,9</td>
<td>12,1</td>
<td>4,7</td>
<td>6,1</td>
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<td>99</td>
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<td>facilities in direct surr.</td>
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<td>Spatial &amp; visual qual.</td>
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<td>Occupancy develop.</td>
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<td><strong>SCORE</strong></td>
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<td>57</td>
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<td>100</td>
<td>100</td>
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Preference rating $R_1 = 70.4$
Heerlen  Geerstraat 105-111 OR: 100,00% WUA: 76,17 CONV: 80,20
Eindhoven  Fellenoord 310-370 OR: 91,00% WUA: 70,61 CONV: 76,67
Eindhoven  Larixplein 5-7 OR: 100,00% WUA: 71,77 CONV: 71,40
Den Bosch Europalaan 28 OR: 49,00% WUA: 58,71 CONV: 60,23
Eindhoven  Luchthavenweg 34 OR: 100,00% WUA: 67,27 CONV: 66,84
Breda Lage Mosten 1-11 OR: 81,00% WUA: 79,76 CONV: 76,50
Breda Lage Mosten 13-23 OR: 100,00% WUA: 78,49 CONV: 75,43
Maastricht  Adelbert van Scharnlaan 170-180 OR: 50,00% WUA: 56,83 CONV: 61,39
Tilburg  Dr. Hub van Doornweg 81, 85 en 89 OR: 43,00% WUA: 57,72 CONV: 59,92
Breda Cosunpark 1-5 OR: 4,00% WUA: 47,02 CONV: 53,71
Breda Cosunpark 20-24 OR: 0,00% WUA: 54,57 CONV: 57,81
Son/Eindhoven Science Park 5-11 OR: 100,00% WUA: 52,86 CONV: 49,85
Den Bosch Pettelaarpark 20 OR: 100,00% WUA: 83,86 CONV: 83,46
Heerlen  Geleenstraat 25 OR: 100,00% WUA: 62,39 CONV: 71,10
Eindhoven  Beukenlaan 143 (t/m e) OR: 74,00% WUA: 70,56 CONV: 73,77
Eindhoven Hooghuisstraat 18-30/ Keizersgracht 3-11 OR: 96,00% WUA: 55,56 CONV: 66,19
Son Ekkersrijt 7005-7049 OR: 55,00% WUA: 64,76 CONV: 62,43
Roosendaal/Bruinewoud 29 OR: 100,00% WUA: 62,03 CONV: 65,20
Den Bosch Ertveldweg 31 OR: 100,00% WUA: 58,53 CONV: 61,83
Den Bosch Ertveldweg 33 + 41 OR: 100,00% WUA: 46,98 CONV: 54,07

Consolidation
Small upgrading
Disposal
Upgrading
Within Use Adaptation