

CRAVEzero

Cost Reduction and market Acceleration for Viable nearly zero-Energy buildings



Analysis and Cross-Comparison of Business Models for nearly Zero-Energy Buildings in Europe

Benjamin Köhler¹, Anneke Quast¹, Arnulf Dinkel¹, Annalisa Andaloro², Armin Knotzer³

1: Fraunhofer ISE

2: eurac research

3: AEE Intec



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European Commission

Horizon 2020
European Union funding
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SBE 2019 – 12th SEP 2019

- Nearly Zero-Energy Buildings (nZEBs) central for achieving energy and GHG emission reduction targets (Global, European, National)
- nZEBs **standard for all new buildings** by 2021 (new public buildings by 2019)
- Possible reasons for current struggle in market uptake: comparably **high efforts for planning and constructing**, **high initial investments**, **lack of adequate business models** for accelerating the nZEB market
- Analysis of **existing business models** of different stakeholders in life-cycle and development of **new nZEB business models** for accelerating nZEB market in Europe

- Find and describe existing BMs in different European markets and life-cycle phases for all stakeholders involved → develop **BM profiles** / characteristics
- Identify **key-factors** and **strengths** of each BM as basis for **BM development**
- **Cross-comparison** of all found BMs

02 Scope and Methodology

- Standardized profile for BM description
- Assessed parameters based on Business Model Canvas
- Collection and description of existing BMs: desk research → only publicly available data / info used; no insider know-how for comparability
- BM description of all project partners
- Comprised markets: Germany, France, Italy, Sweden, Austria, UK, Belgium, Netherlands



CONSTRUCTION COMPANY: PREFABRICATED HOUSES

VALUE PROPOSITION:
 The company offers prefabricated houses with very high energetic standards such as efficiency houses (40+, 40, 55), Plus-energy houses and passive houses such as single or multiply family homes, bungalows and double houses. The offer includes a carefree support starting with informing and advising customers to the actual building and (optionally) renovating processes of a building. With a high level of customization as well as cost and planning security the customer's wishes are met. Moreover, the company promises stable building value and a secure, healthy and sustainable building process, fair cost effectiveness and a transparent communication of costs.

CUSTOMER RELATIONSHIPS:
 In order to get in touch with customers the company provides "Building information days", brochures and a detailed website. References of previous projects as well as guarantees of prices and various certificates and awards shown on the website are used to build trust. Personal assistance, a customer service reachable via telephone hotline as well as internet and the offer of renovation services helps building a long-term customer relationship.

CUSTOMER SEGMENT:
 The offer is directed at families wishing to build their own home as well as private and public investors building single and multiply family houses all of which emphasize on sustainable and energy efficient buildings.

ACTIVITIES AND CAPABILITIES:
 The service portfolio includes providing the necessary information for customers, consultancy, intermediation of architects, construction and its supervision as well as optional financing services, renovation and customer support. Additionally, the company benefits from having their own production sites for building parts, parks with show houses, kitchen studios, design joineries and finance services spread across Germany.

REVENUES:
 Revenues are made depending on the relevant contract. The company offers various different contracts depending on the construction stages included. Furthermore, costs depend on the customers' wishes such as type of building, architectural style, technical equipment etc. Moreover, additional revenue streams for financial consultancy, interior furnishing or renovating tasks are possible.

COSTS:
 The company produces their building materials and prefab parts itself which is likely to be the most expensive expenditure (resources) followed by personnel expenditures for the construction phase, consultancy and customer support.

STRENGTHS AND KEY FACTORS

- ✦ Prefab buildings for faster construction
- ✦ Easy coordination (most services inhouse)
- ✦ Own manufacturing facilities, finance service, kitchen center and show house parks
- ✦ Life-long customer support for lock-in

MATURITY:
 The company has a long construction history and can provide clients with technical data from older buildings. These data can be used for e.g. future energy efficiency upgrades and design changes.

PLACEMENT ALONG VALUE CHAIN OF NZEBs



Placement of nZEB business models along the value chain

02

Scope and Methodology

PARAMETER	DESCRIPTION
Value Proposition	Products, services, features, benefits creating value for the customers
Customer Relationship	Intensity of customer-provider relationship, channels to reach the customers
Customer Segment	Typical Customer group that the product/services is directed at
Activities and Capabilities	The most important activities a company needs to conduct in order to provide the offer and necessary resources required
Revenues	Type of streams a company generates revenues with
Costs	Most important expenditures that incur for the provision of the offer
Maturity	Stage a company is situated in regard to how elaborated and integrated a business model is.
Key Factors and Strengths	The most important factors and strengths that make the business model work successfully.

BM-Analysis

Analyzed BMs, Value Proposition, Strengths and Key Factors, Life Cycle Phases

- Cooperative in Real Estates (1)
- Energy Service Company (6)
- Engineering and Construction (9)
- Facility Management (4)
- Planner (6)
- Real Estate Developer (2)
- User/owner (1)
- Urban Planner (1)
- Certifier (1)
- Consultancy (2)
- Financier (2)
- General Contractor/ Developer (7)
- Promoter & Information Provider (2)
- Trading Platform (2)
- Vendor (7)
- Research Entity (3)
- Other/ not defined (2)

Total: 60 BMs

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BM-Analysis

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BM-Analysis

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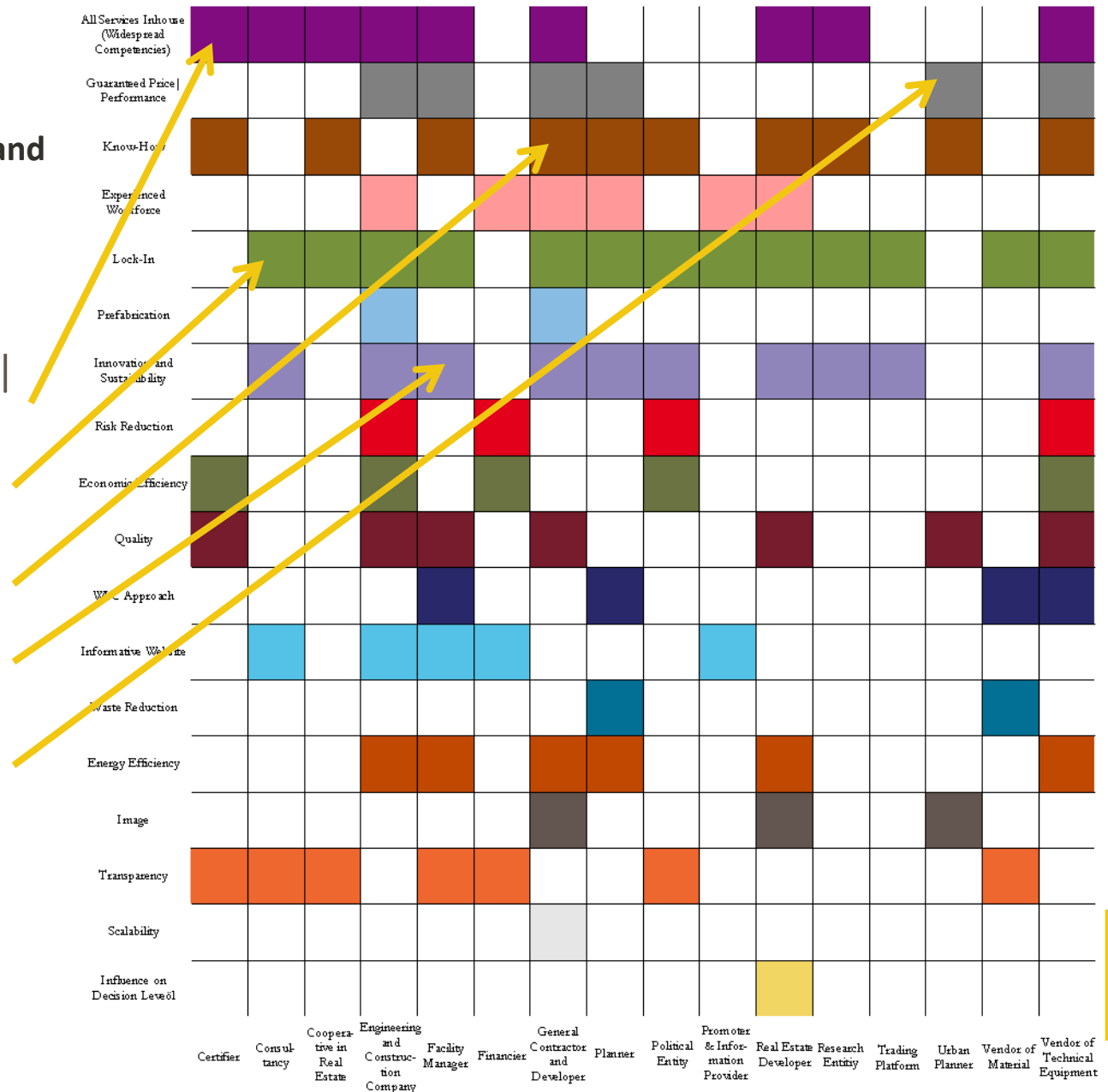
- All Services In-house (Widespread Competencies)
- Guaranteed Price / Performance
- Know-How
- Experienced Workforce
- Lock-In: create and maintain good customer relationships
- Prefabrication
- Innovation and Sustainability
- Risk Reduction
- Economic Efficiency
- Quality
- WLC Approach
- Informative Website
- Waste Reduction
- Energy Efficiency
- Image
- Transparency
- Scalability
- Influence on Decision Level

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BM-Analysis

Analyzed BMs, Value Proposition, Strengths and Key Factors, Life Cycle Phases

- General:
 - Widespread competencies / All Services In-House
 - Lock-In
 - Know-How
 - Innovation and Sustainability
 - Guaranteed prices/ performances
- Many BMs strongly depend on collaboration of different partners and stakeholders



03 BM-Analysis

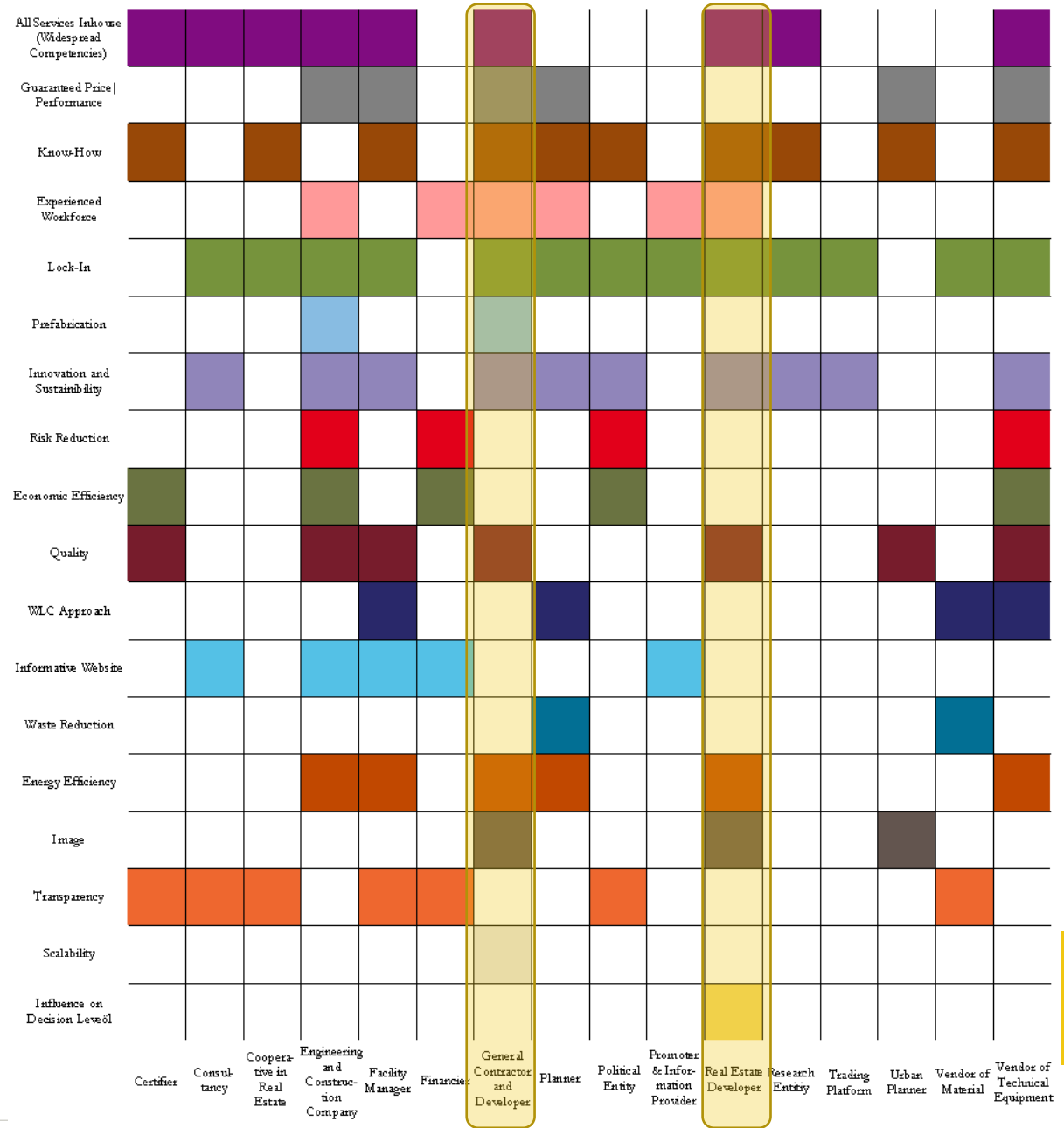
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BM-Analysis

Analyzed BMs, Value Proposition, Strengths and Key Factors, Life Cycle Phases

- General Contractor and Developer:
 - Scalability
- Real estate developer:
 - Influence on the (political) decision level



03 BM-Analysis

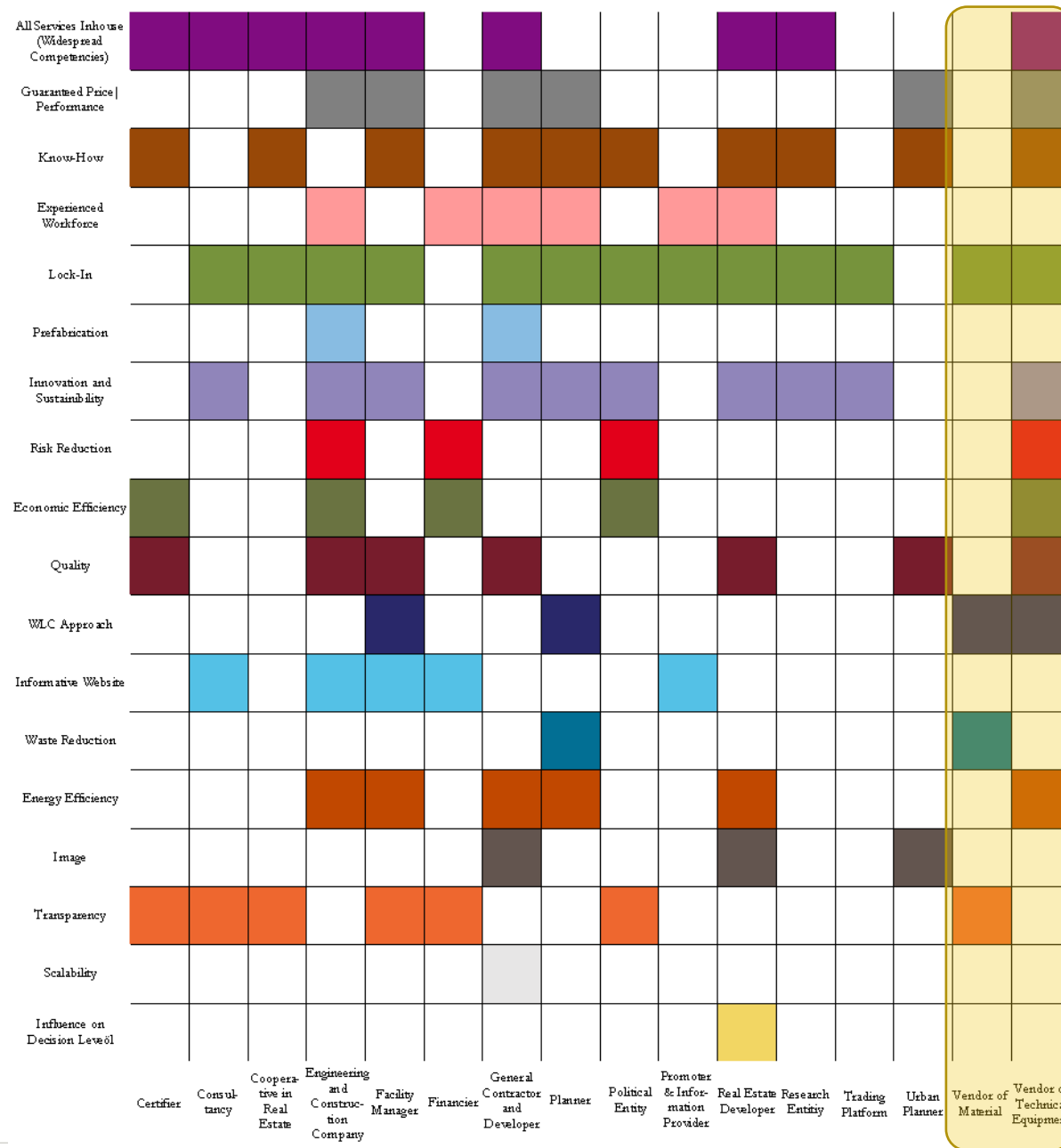
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BM-Analysis

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- Vendors of technical equipment and materials:
 - Take whole life-cycle of products into account
 - Take care of waste reduction
 - Stress transparency
 - Strong customer relationship



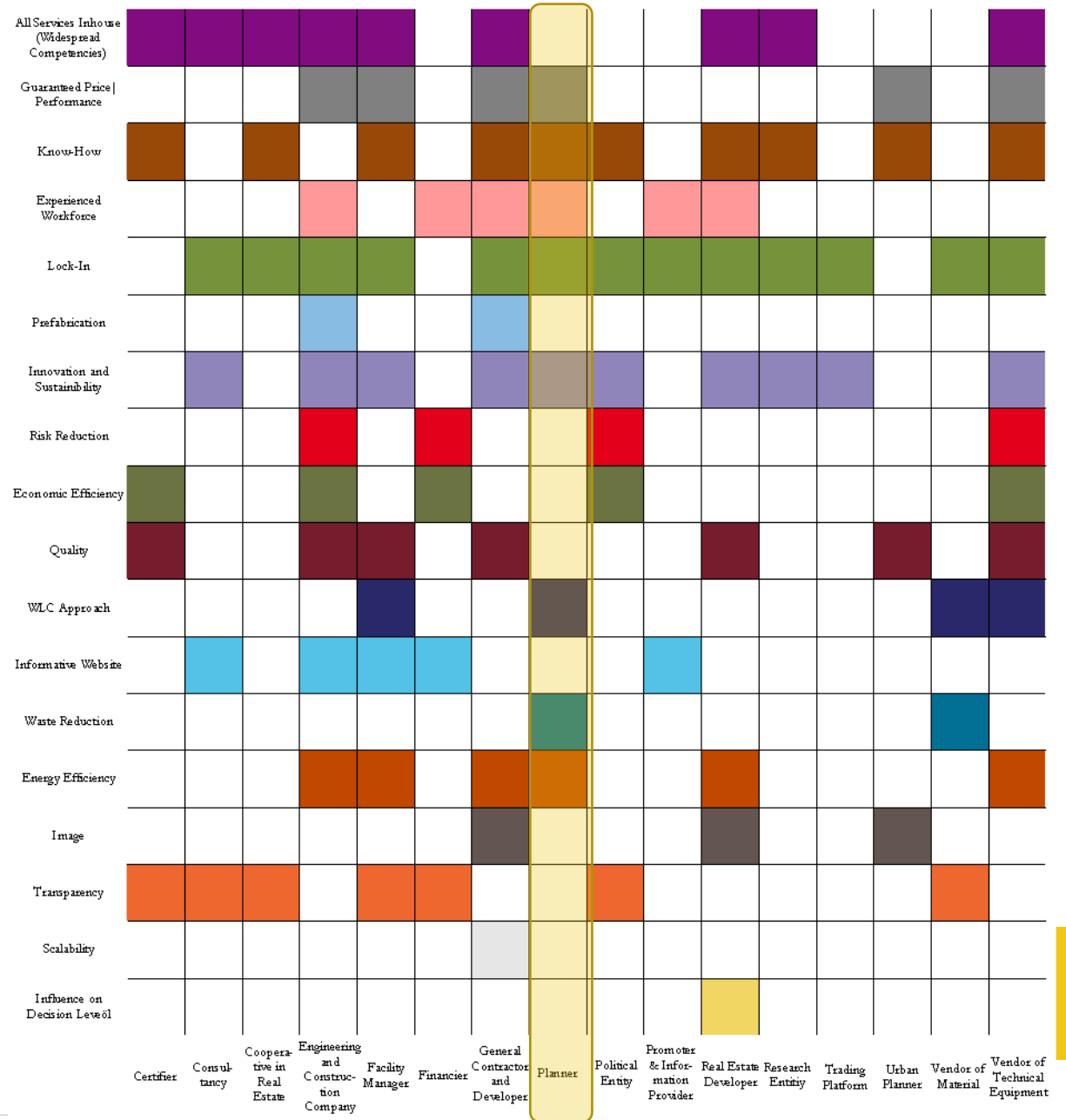
03 BM-Analysis

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BM-Analysis

Analyzed BMs, Value Proposition, Strengths and Key Factors, Life Cycle Phases

- Planners:
 - Focus expertise on specific and confined planning phase
 - Innovative planning tools and capability of using them efficiently
 - Know-how in the field
 - Experienced and well trained employees



BM-Analysis

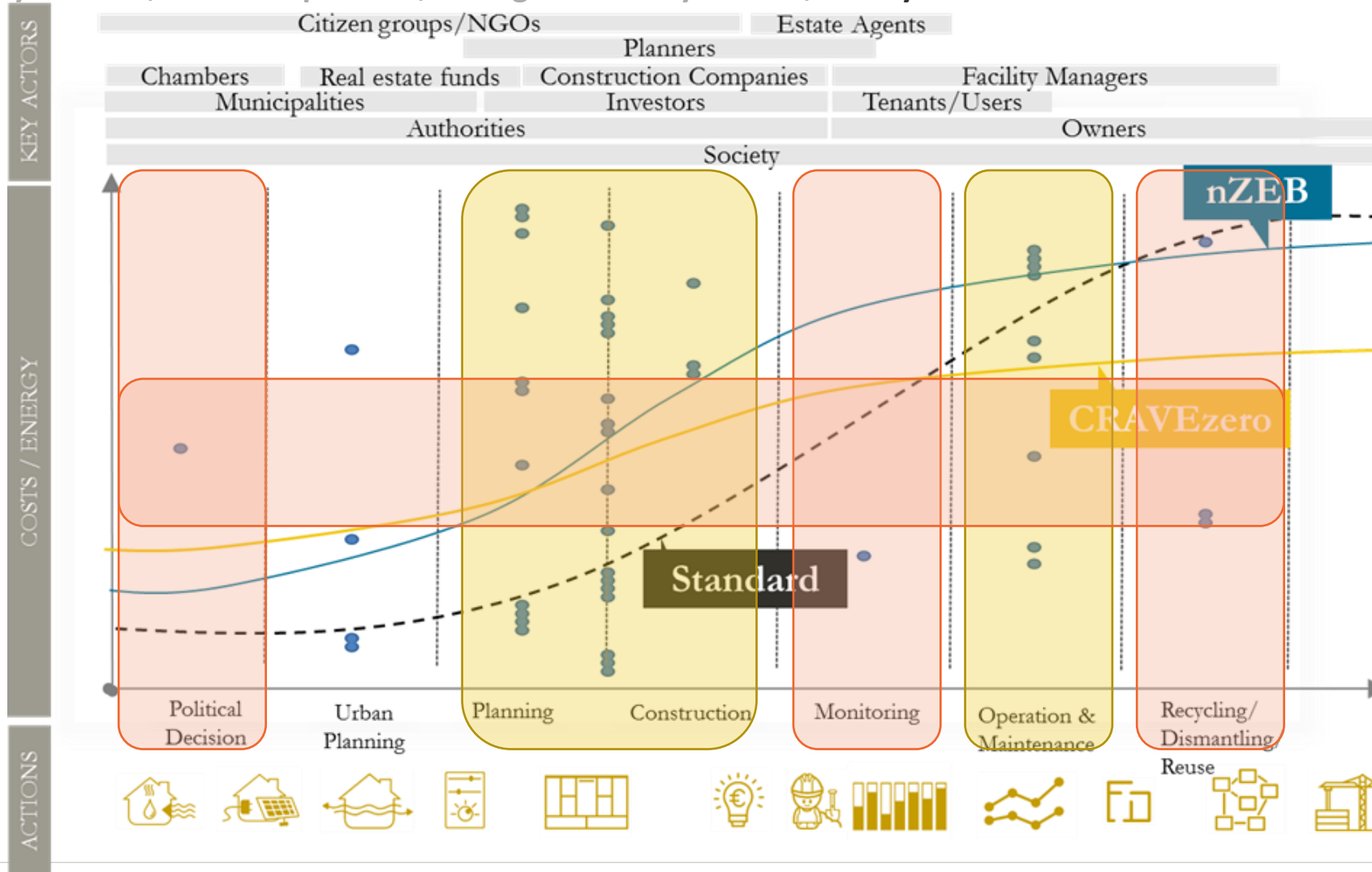
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04

Conclusion and Outlook

- Methodology and structure allows holistic cross-comparison of BMs in different life-cycle phases and of different stakeholders
- Value proposition: Most common features are green labels, sustainability, energy and cost reductions, efficient energy performance
- Strengths and key factors: widespread competencies, know-how, innovation and sustainability, guaranteed prices/ performances, customer relationship
- Only few BMs in Political Decision, Monitoring and Recycling/ Dismantling/ Reuse → room for new BMs?!
- Lack of comprehensive BMs covering the whole value chain / life-cycle

04 Conclusion and Outlook

- Results / findings will be used to develop new Business Models to
 - Fill identified gaps
 - Decrease overall life-cycle costs
 - Create value for all stakeholders
- Detailed reports available on cravezero.eu/reports/

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Thank you for your attention!
Questions?

[Benjamin Köhler \(Fraunhofer ISE\)](#)

benjamin.koehler@ise.fraunhofer.de



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