

Implementation and implications of supply chain integration in construction

The case of a housing corporation and a building firm

Coming together is a beginning, keeping together is progress, working together is success. Henry Ford

Industry Day
8 October 2009
Noordwijk aan Zee

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8 oktober 2009

Ketenintegratie in de bouw: beter, sneller en goedkoper



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DURA VERMEER

Supply chain integration programme

- Collaborative initiative client and builder
- Structural integration of processes
- 10 year building programme, 5000 houses

Objective

- More efficient and smarter working
- Higher product quality/price
- Higher productivity
- Faster projects
- Higher profits
- Higher satisfaction of residents and employees

Challenges

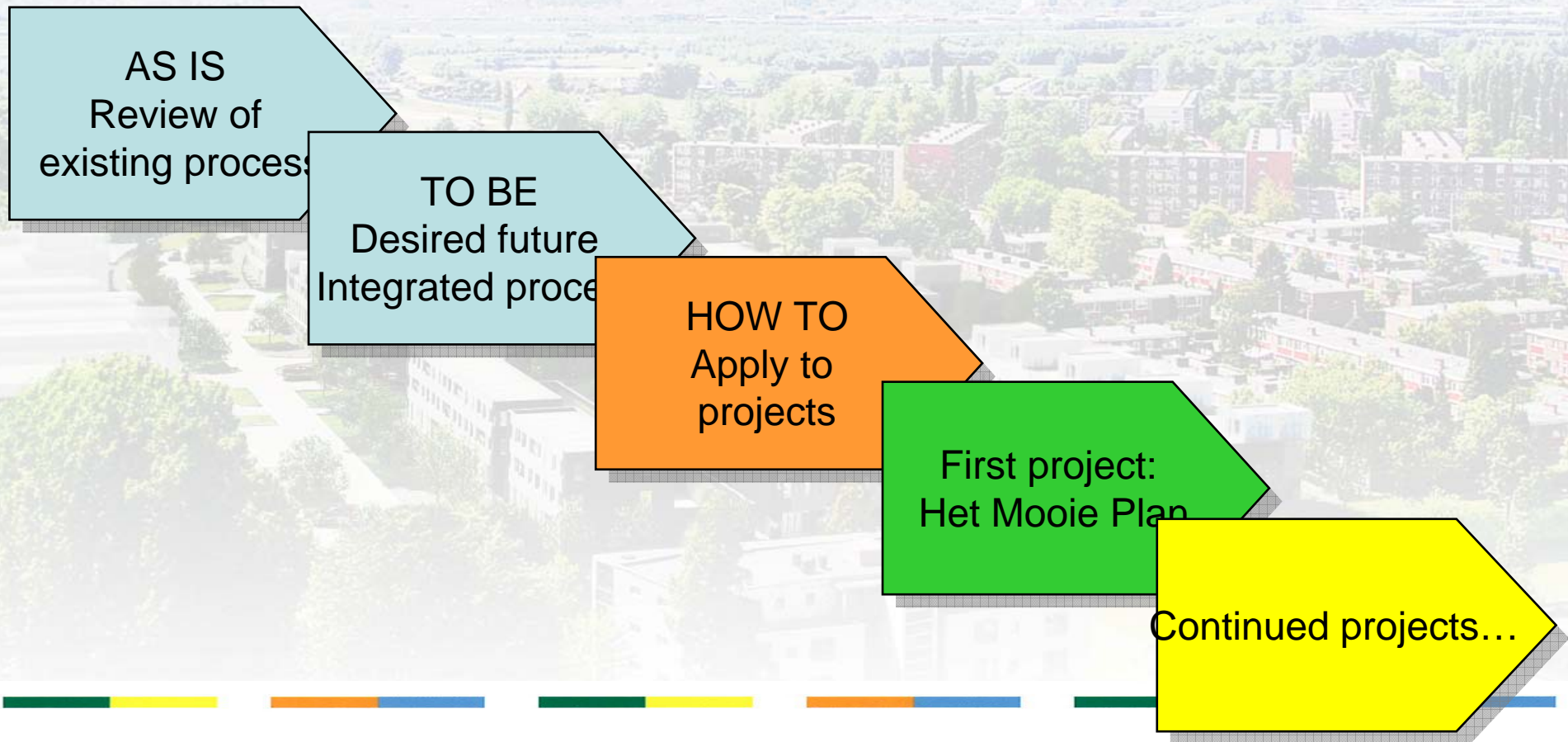
- Complexity of existing process, context
- Break-through of “fighting model”, existing culture, tradition
- Establishing trust as a major prerequisite
- Alignment of interests

Main issues

- Unifying objectives and interests
- Multi-project approach, repetitive
- Think and act as one firm
- Learning as a result of continued work



Programme



Review of existing processes AS IS

- Different approach to processes
- Unclear process starts and endings
- Many external parties involved, outsourcing
- Architect and advisors working autonomously
- Personal interests, “old sores”, distrust
- Stuck in existing roles, behaviour, culture



Desired future integrated process TO BE

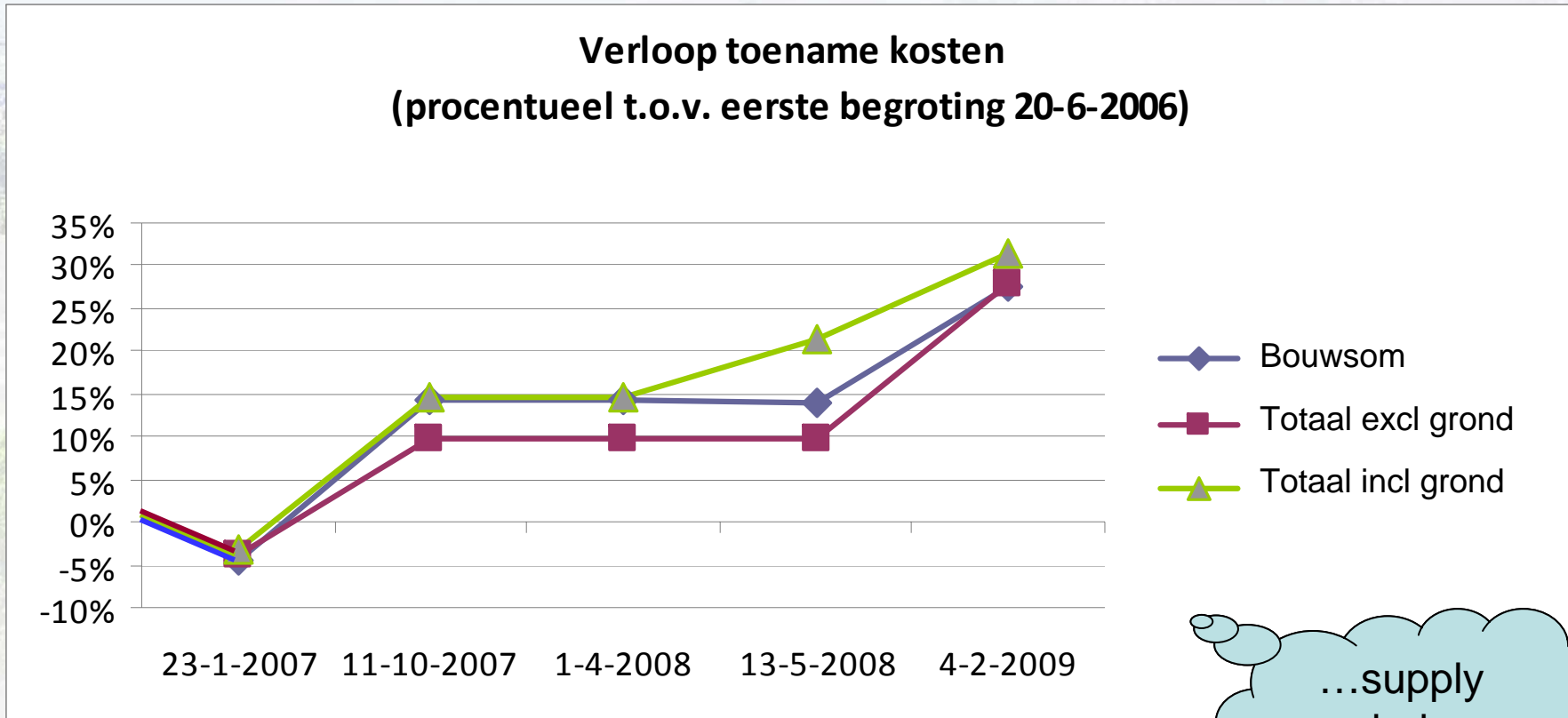
	Bouwcyclus Ketenintegratie T.b.v. project 100 gge woningen met repetitie-effect	Strategische doelen vaststellen Projectplan bepalen, team, MS, verdelers, etc.	Initiatief Strategische klankeiding en Business doorkwalig project	Details & Toelichting Verdelers PUG, Bouwplannen aanbesteden	Ontwerp & BIM Ontwerpen en 3D-modelleren: Van ontwerp ontwerp tot en met werkbouwen	Verkoop & voorbereiding Alle voorbereidende activiteiten in 100 wonen project	Uitvoering Leen bouwen, Kwaliteit en snellere op de bouwplaats	Oplossing project & gereedschap Nieuw opbrengst, Nieuw vastgoed, Nieuw team	Evaluatie en exploitatie & start initiatief volgevoerd project Aankomst succesvol project, Op naar een nieuw succesvol project
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Het Mooie Plan: Pilot project



Costs

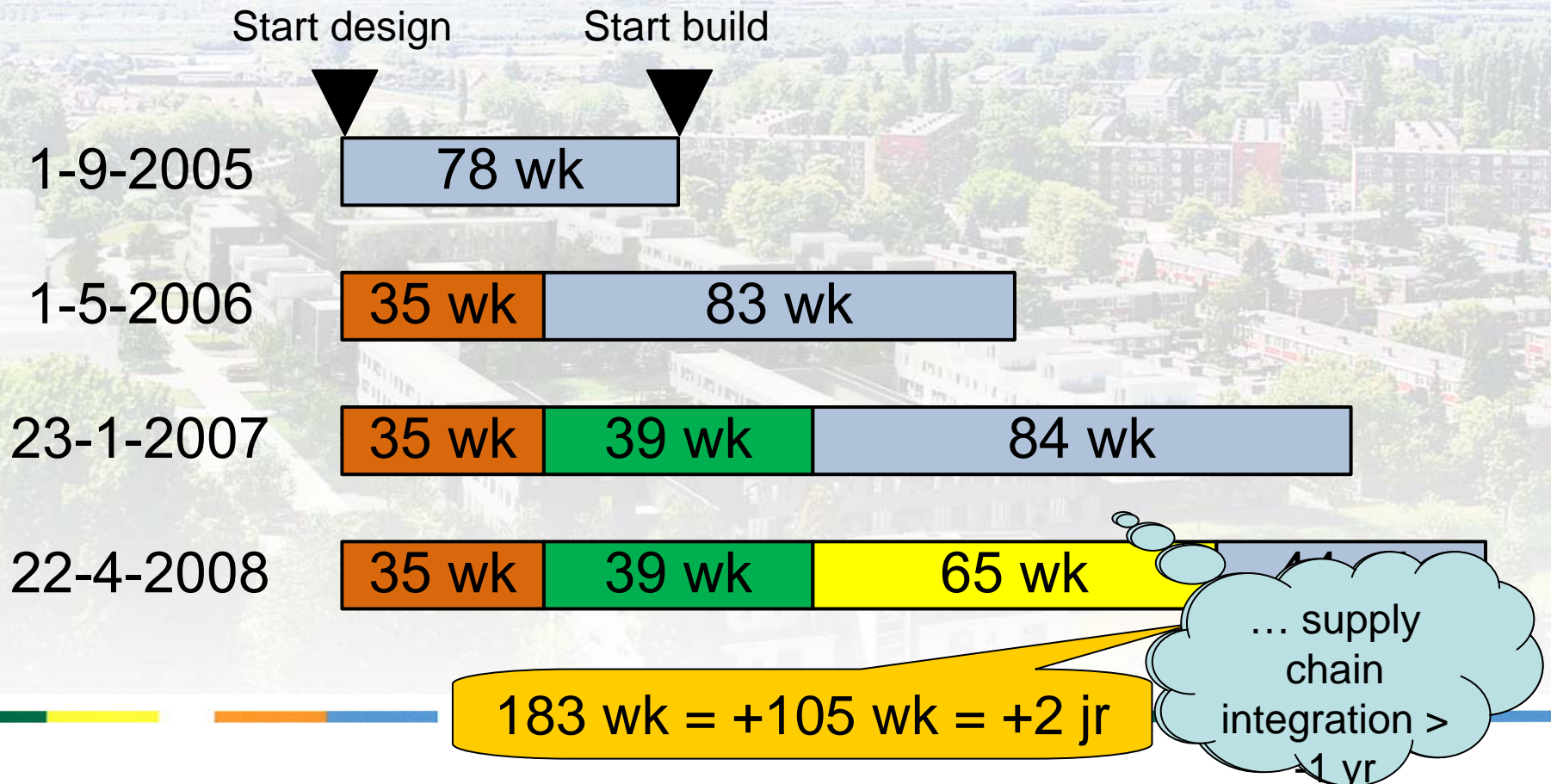
Verloop toename kosten
(procentueel t.o.v. eerste begroting 20-6-2006)



20-6-2006 = reference

...supply chain integration
> -5%

Time



Improvements achieved

- Within original budget
 - Without compromising architecture
- Cost reduction by joint thinking
 - No reserves for price fluctuation
 - Reuse site fences, facade improvements
 - Joint purchasing and selection of suppliers
- Start date secured
 - Started without contract



- Good atmosphere in the team

New tools

- Project portal
- BIM
- Project management guidelines
- Base/reference house/programme
- Base/reference budget
- Cost indicators
- Standardised contracts
- KPIs



BVR

New methods

- Lean construction
- Collaborative design
- Life cycle analysis
- Risk/reward sharing



Process organisation

- Joint starts and endings of processes
- Joint project development
- Joint design/project facilities



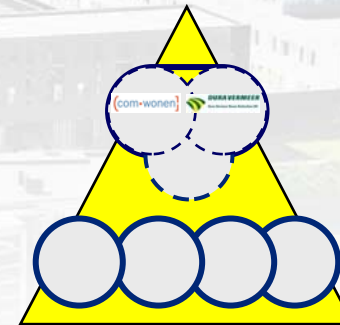
People and partners

- Selection of preferred partners, co-makers
- Revise roles of people
- Training and coaching
- Peer review and mentoring



Supply chain configuration

- Existing
- Transformation
- Integrated supply chain



Supply chain partners

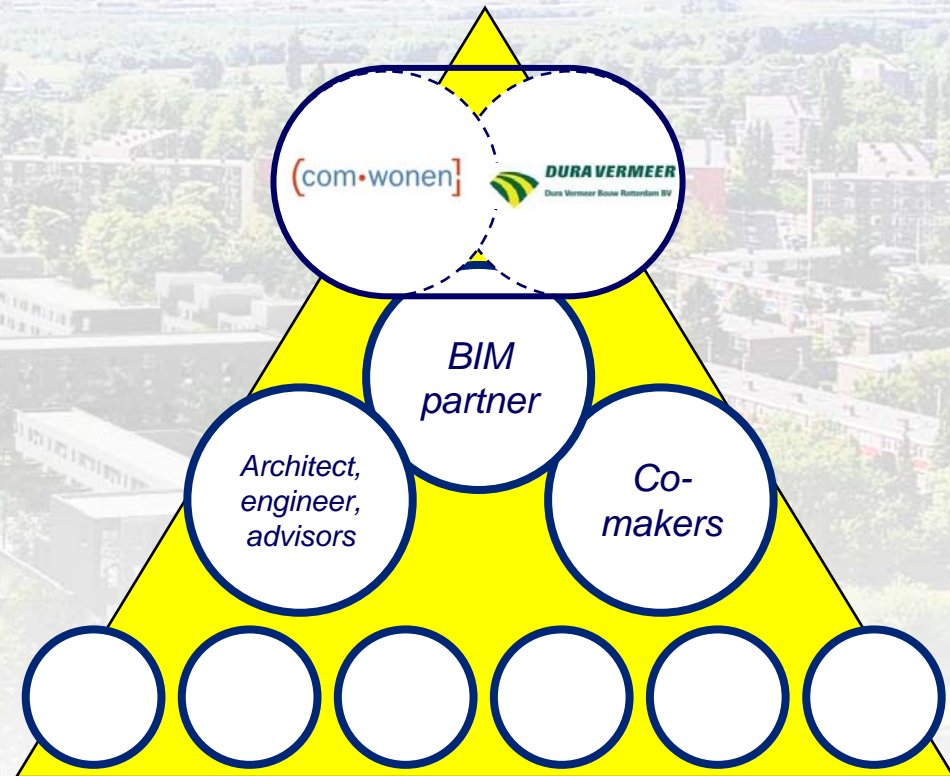
Multi-project	Advisors	Com-wonen Dura Vermeer BIM partner
	Suppliers	Architect Engineer Co-makers
Per project	Not critical	Critical

Integrated supply chain

Strategic partners
(critical – multi-project)

Preferred partners
(critical – per project)

Suppliers



(com•wonen)



Ketenintegratie
in de bouw

Bij ons in de keuken...



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Recipe for success

- Unification of commercial interests
- Respect for each other's business
- Commitment and enthusiasm
- Multi-project approach, leads to innovation
- Think and act as one firm
- Trust and transparency
- Everyone committed to add value
- Measuring results, feedback
- It's people's business

Thank you for your attention

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