




Quintiq solving world's most complex planning & scheduling puzzles


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- 1  Quintiq's vision on solving world's most complex planning puzzles
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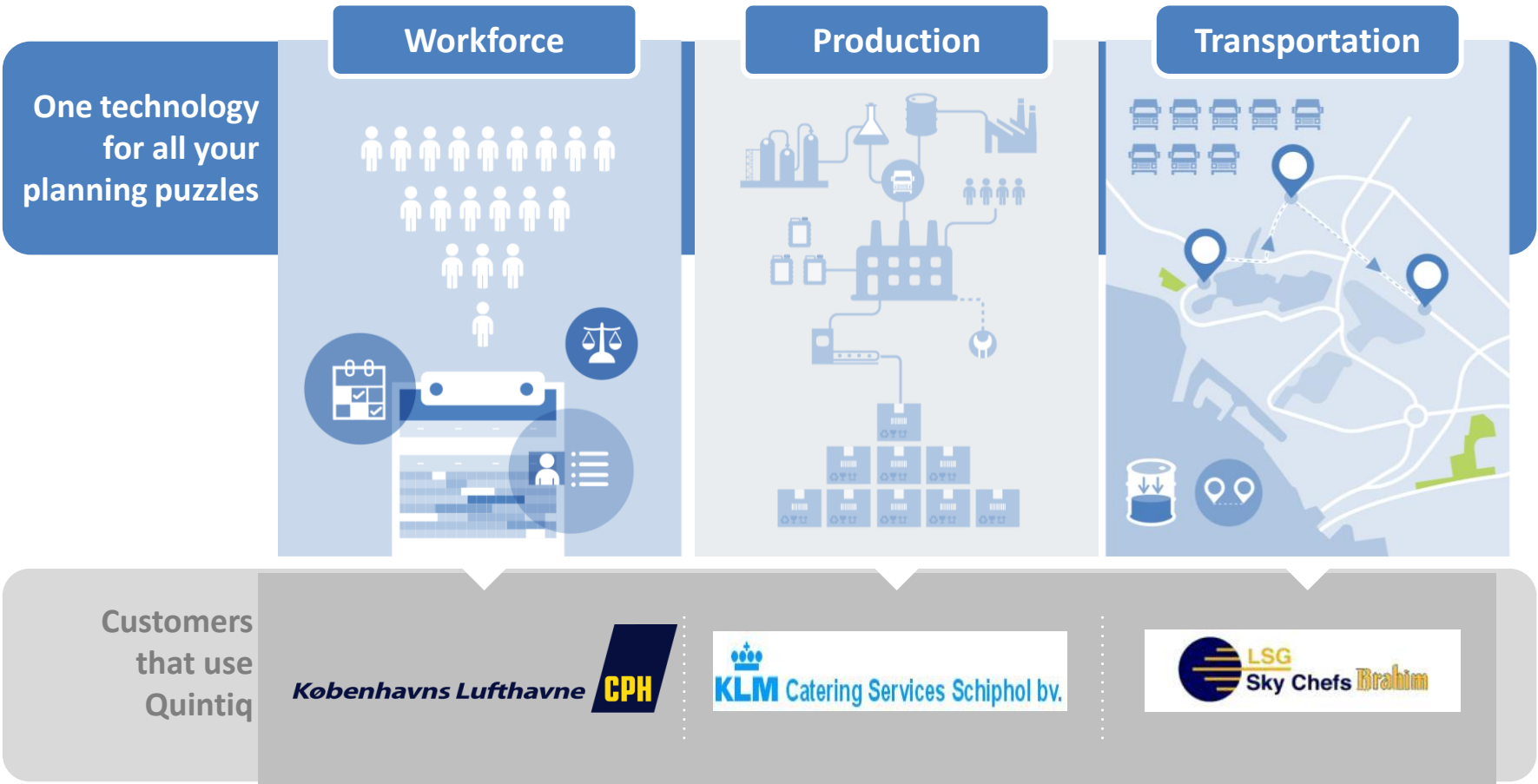
- 2  Quintiq demo showing a common workforce planning challenge
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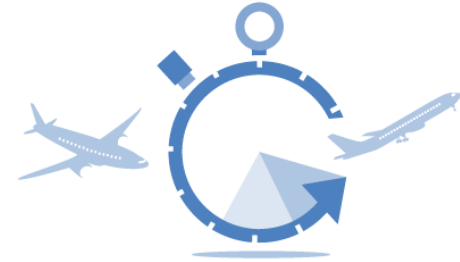
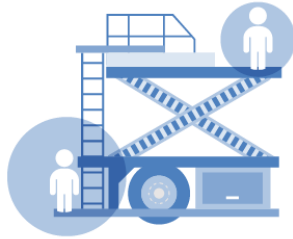
Quintiq's vision on solving world's most complex planning puzzles



Quintiq founding vision



What type of airport planning puzzles do we solve?



What makes airport planning puzzles so complex?



Safety regulations



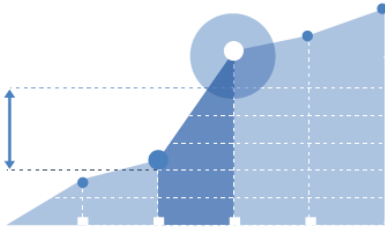
SLAs



Fluctuating traffic volumes

DEPARTURES		
FLIGHT	DESTINATION	REMARKS
BG 017	LONDON	DELAYED
BA 297	CHICAGO	
BA 115	NEW YORK	DELAYED
CA 957	SHANGHAI	DELAYED
AA 651	ROME	DELAYED

Delays



Daily peaks in demand

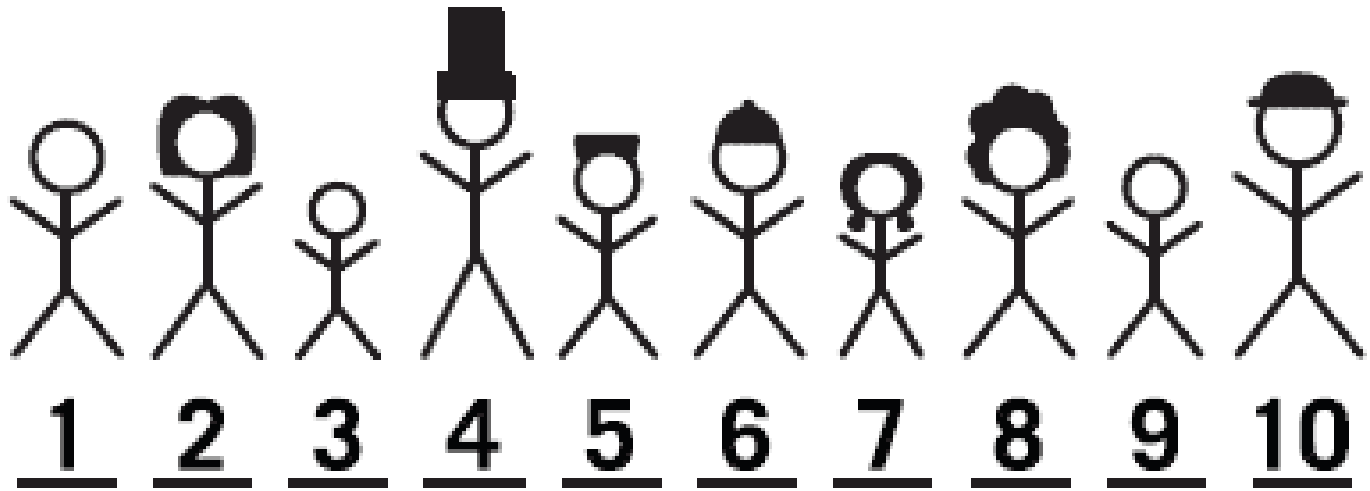


Workforce agreements

An example of a 'simple' puzzle



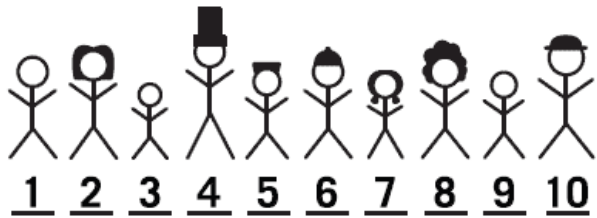
10 PEOPLE LINED UP



An example of a 'simple' puzzle



10 PEOPLE LINED UP

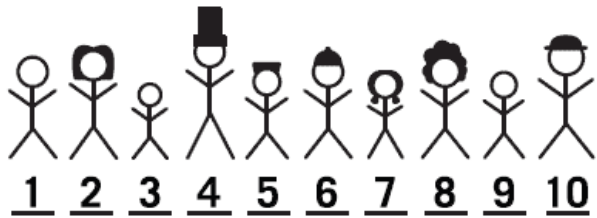


How many planning possibilities?

An example of a 'simple' puzzle



10 PEOPLE LINED UP

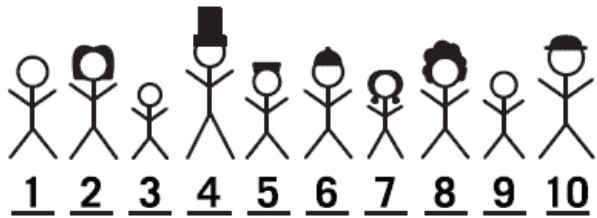


$$10 * 9 * 8 * 7 * 6 * 5 * 4 * 3 * 2 * 1$$

An example of a 'simple' puzzle



10 PEOPLE LINED UP

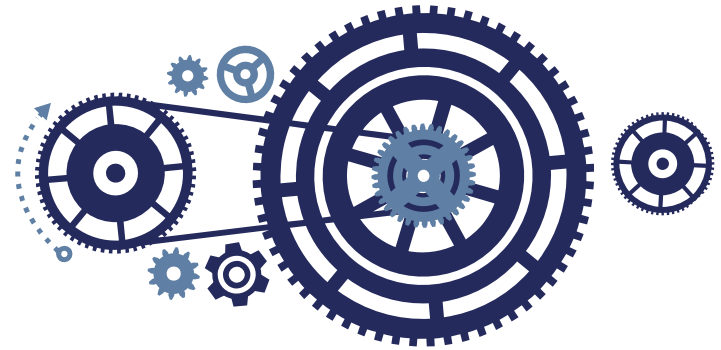


3,628,800



Take the Fastest Computer On the planet

- IBM Sequoia clocking in at **16.32 petaflops**.
- How long does a brute force approach take ?

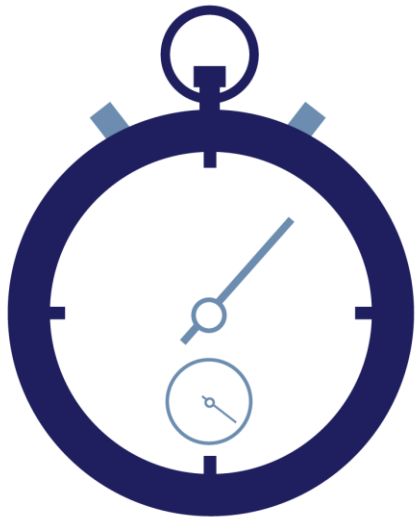


An example of a 'simple' puzzle



That would actually take 0.00000000002 seconds
[under previously explained totally unrealistic assumptions]





Knowing this, how long do you think it would take for **25** and **32** people respectively?

A bit more complex example of a planning puzzle



25 People = 1 year

$6.2 * 10^{23}$ solutions

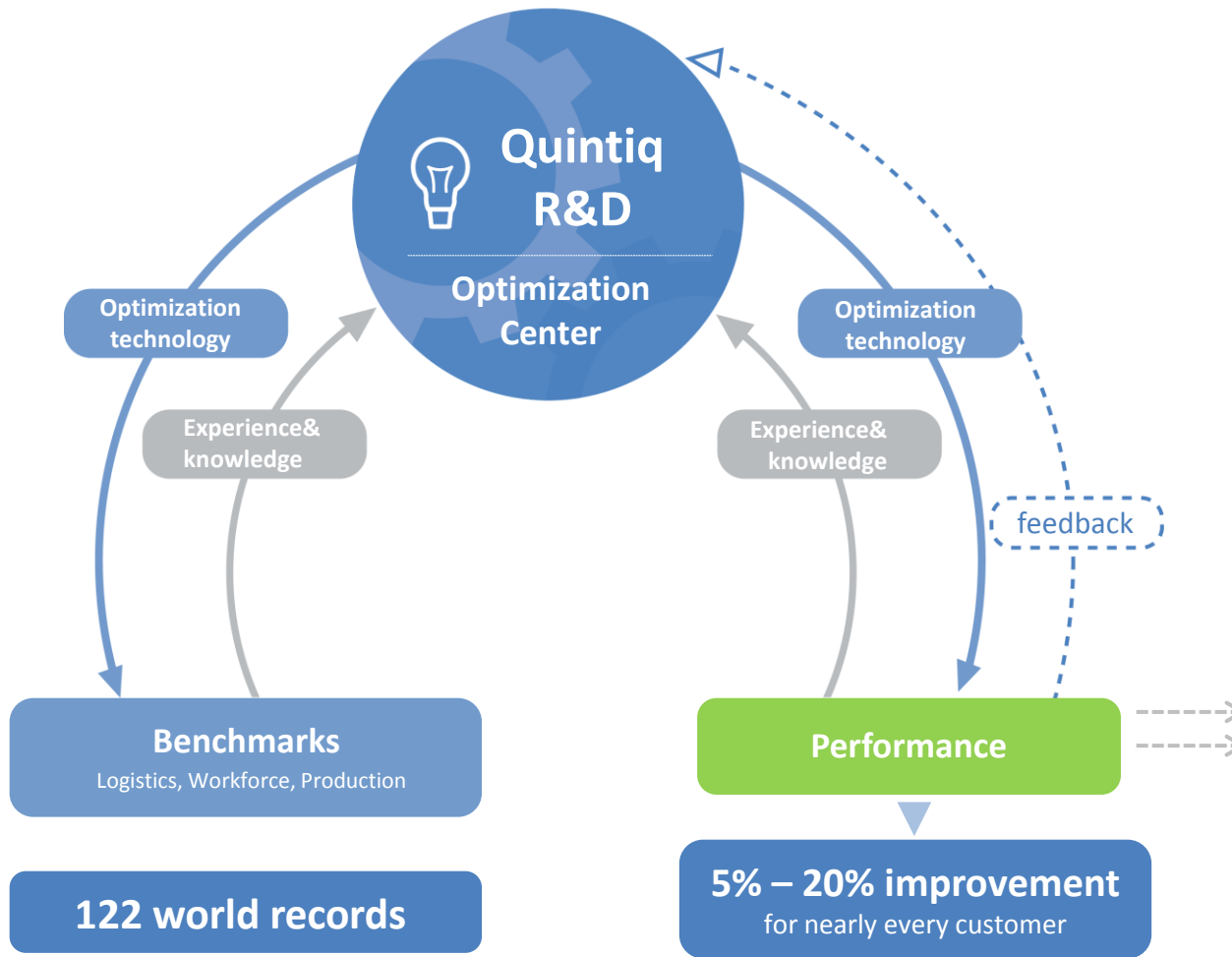
32 People = 16 billion years

$8.2 * 10^{33}$ solutions

16 billion years is
3 times
the age of the earth
(4.59 billion years)



The power of world-class optimization



Real results

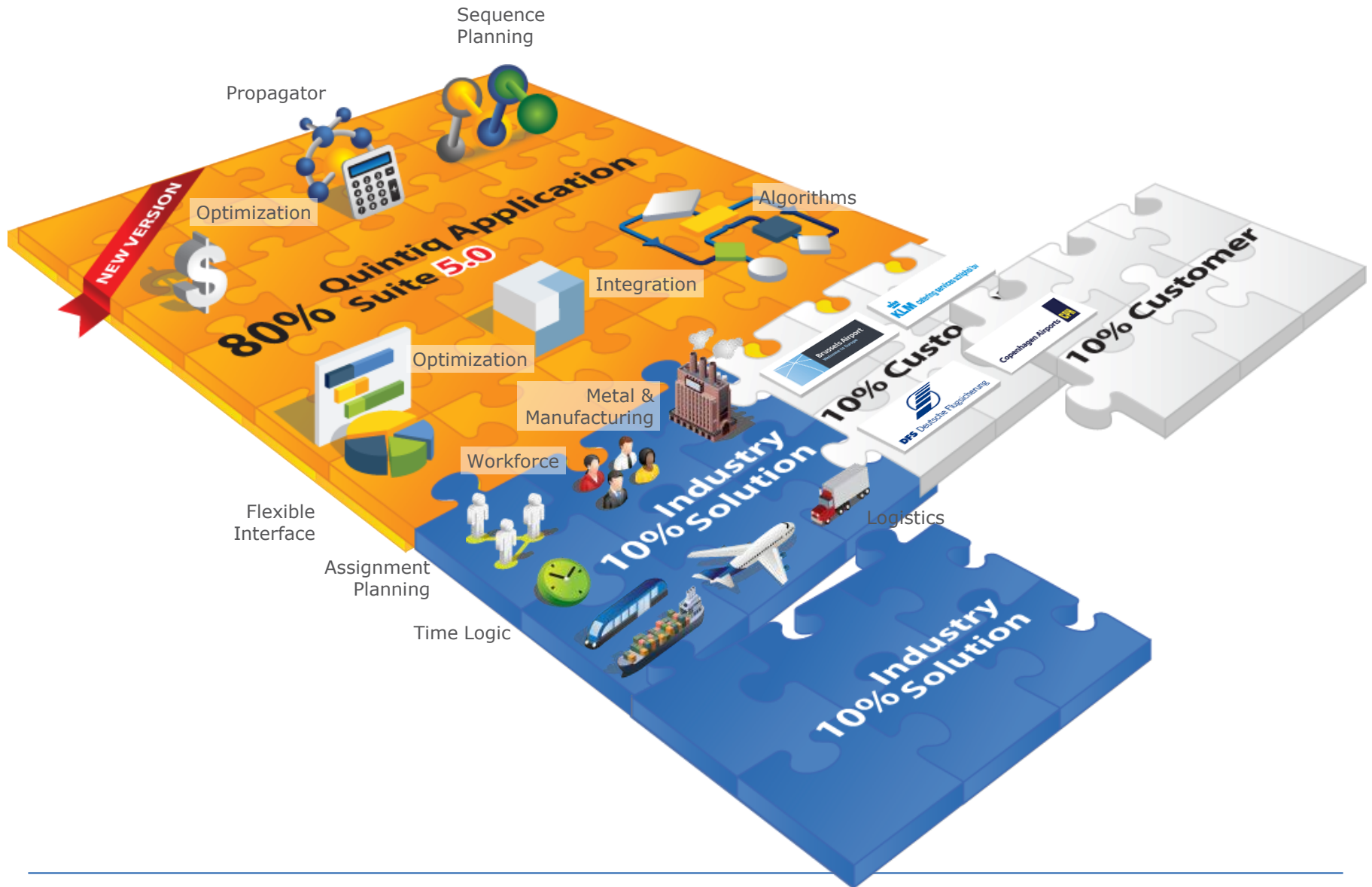
Transavia
Improved interface usage by
10%

KLM
Catering staff cost reduction by
15%

LSG Skychefs
vans reduced by
35%

G4S guarding
Improved employee Utilization by
20%

The building blocks we use to solve your planning puzzle





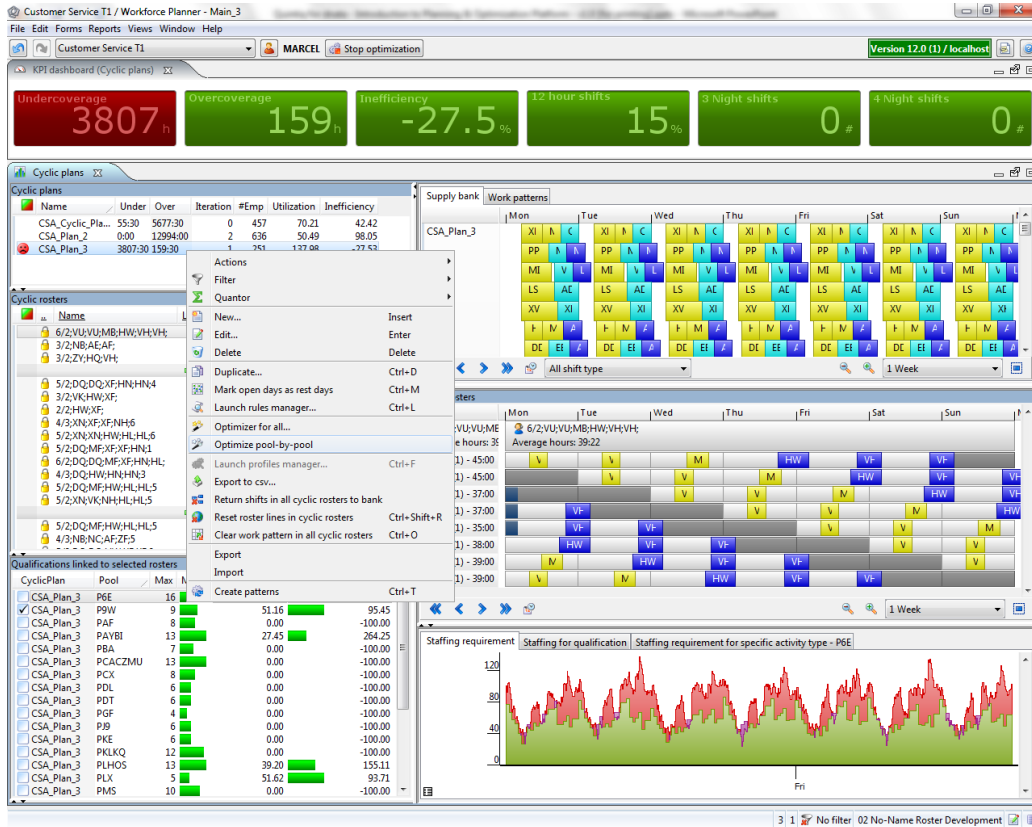
Quintiq demo showing a common workforce planning challenge



Supporting all planning decisions in one solution

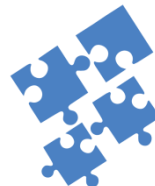


Demo





Single integrated solution across the entire value chain and all time horizons.



Empowers planners to quickly balance different goals through visualization, collaboration and interaction.



Includes algorithms to optimize KPIs and propagate the effect of decisions.