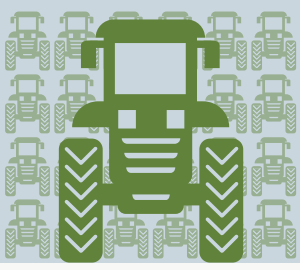
SIEMENS
Ingenuity for life

Siemens PLM Software

Collaborative manufacturing in construction, mining and agriculture

Heavy equipment manufacturing is massively complex.

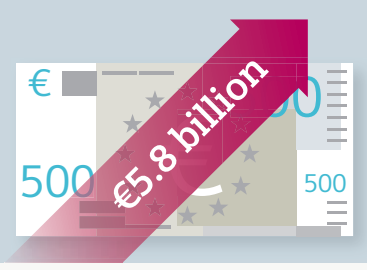
Unlimited configurations



From March 2011 to March 2012, John Deere says, customers ordered more than **7,800** different configurations of the 8R. On average, each configuration was built only 1.5 times.

(Source: Bloomberg Business)

Environmental mandates



The cost to comply with Stage V emissions will cost non-road mobile machinery (construction machinery) engine and machinery manufacturers **€5.2 - €5.8 billion** through 2040.

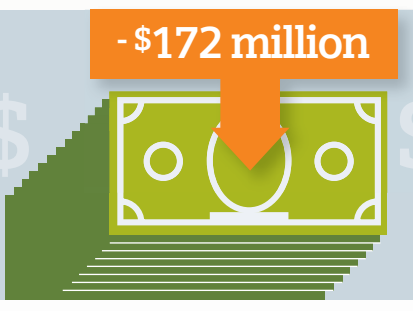
(Source: European Commission, 2014)

Globalization

Global population is expected to grow from **7 billion** today to nearly **10 billion by 2050**. To meet demand, farmers will have to grow as much food over the next 50 years as they have over all of recorded history.

(Source: Agco 2014 Annual Report)

Heavy equipment manufacturers need to become more innovative.

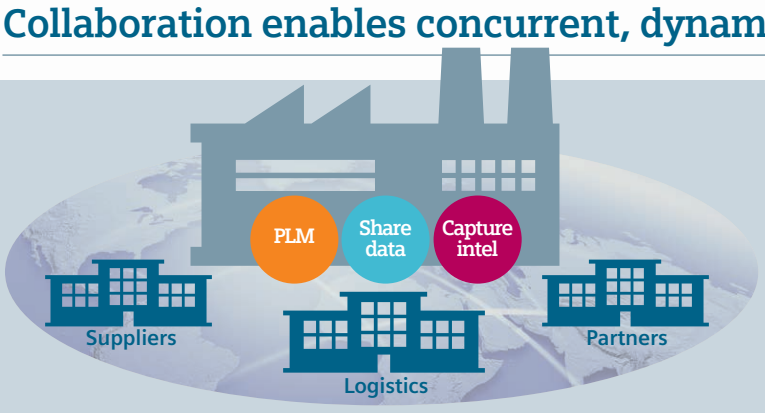


A heavy equipment manufacturer lost **$172 million** in one quarter after failing to meet federal emissions standards.

(Source: IndustryWeek)

Regionalization and local manufacturing result in language, quality and process challenges.

Collaboration enables concurrent, dynamic engineering and manufacturing.

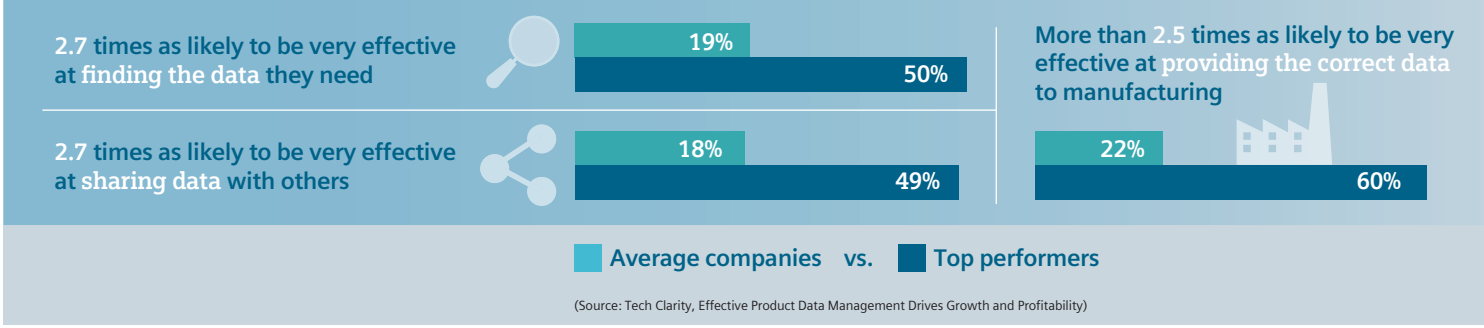


PLM platform

- **One PLM system** for engineering and manufacturing to improve quality, increase productivity, and decrease costs through early iterative analysis, planning, change management and feedback
- **Share product data, designs, and information** on a unified platform across global engineering and manufacturing
- **Improve the capture and management** of manufacturing intelligence (costs and methods)

Integrated engineering and manufacturing is critical to addressing complexity.

Closed loop change between engineering and manufacturing **+** Visual process planning **+** Intelligent shop floor instructions **=** Enhanced engineering and manufacturing collaboration – *shorter time-to-market*



(Source: Tech Clarity, Effective Product Data Management Drives Growth and Profitability)

Heavy equipment and machinery leadership

44 years

Siemens PLM Software has powered heavy equipment for the last 44 years.

Expertise

The world's top heavy equipment manufacturers choose Siemens PLM Software because of comprehensive expertise, broad leadership, and unmatched momentum in the global heavy equipment and machinery industry.

Go to siemens.com/plm/collaborativemanufacturing

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