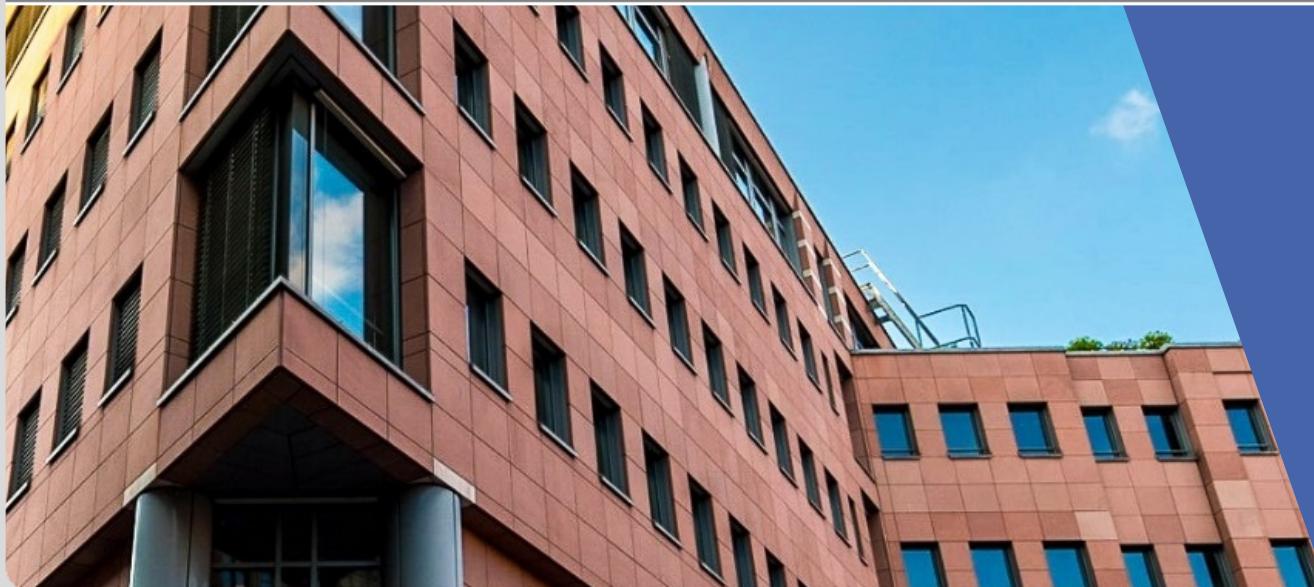


Monetization of Data @ BITKOM - AK Industrie 4.0 Markt und Strategie

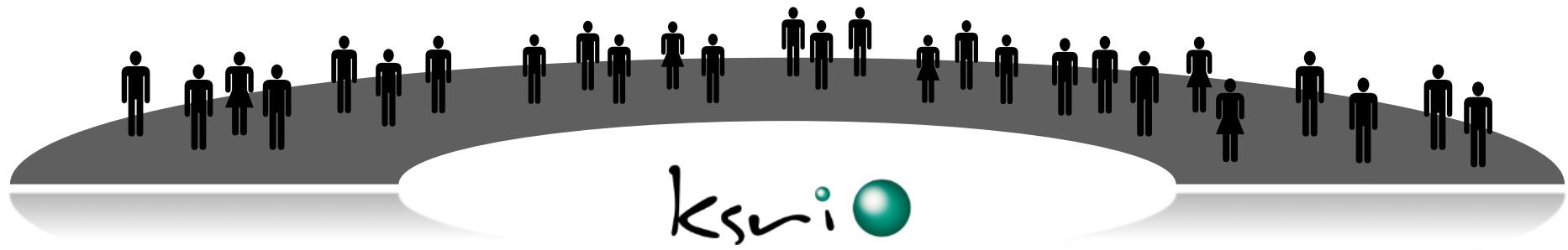
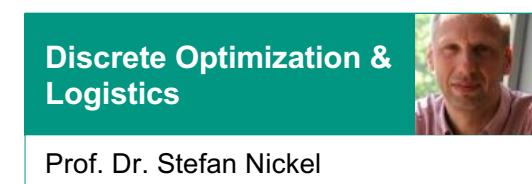
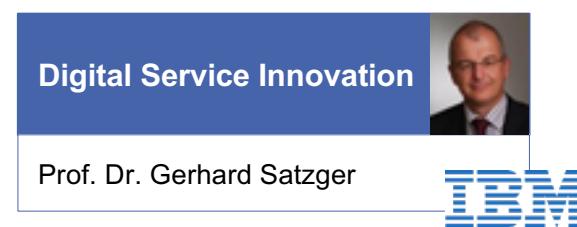
Dr. Ronny Schüritz
Sept. 19, 2017

KARLSRUHE SERVICE RESEARCH INSTITUTE (KSRI)

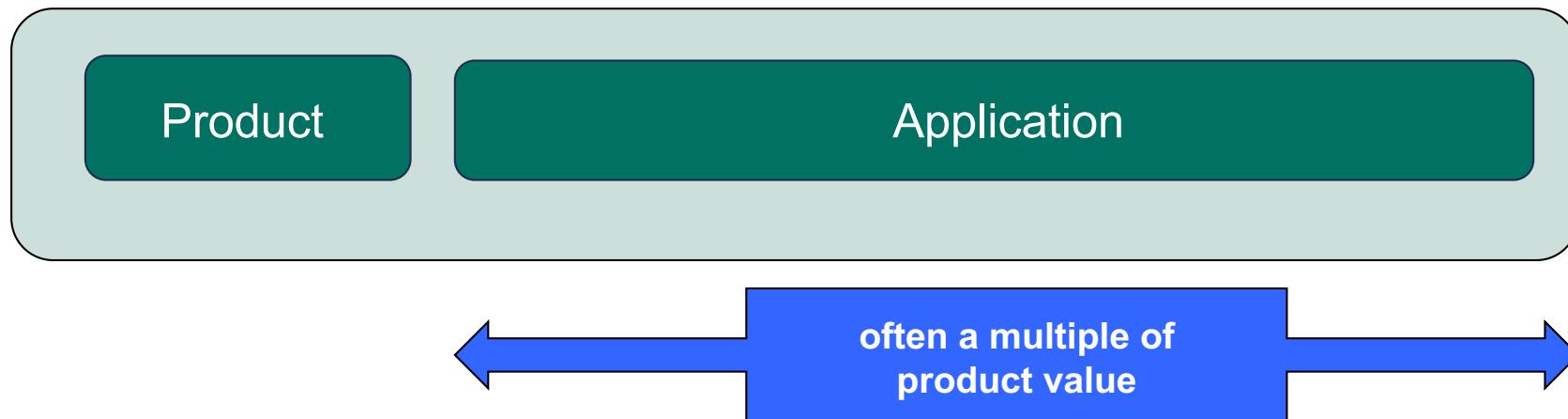


ksri
www.ksri.kit.edu

KSRI – An “industry-on-campus” model with focus on interdisciplinary and application-oriented research

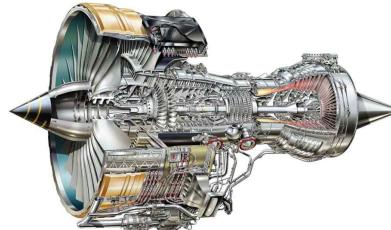


Services enable „intrusion“ into customer value creation process and open the potential for higher margins and differentiation



... and this holds also for industrial contexts:

"Traditional"
approach



Source: Rolls-Royce

"Power by the hour" – approach

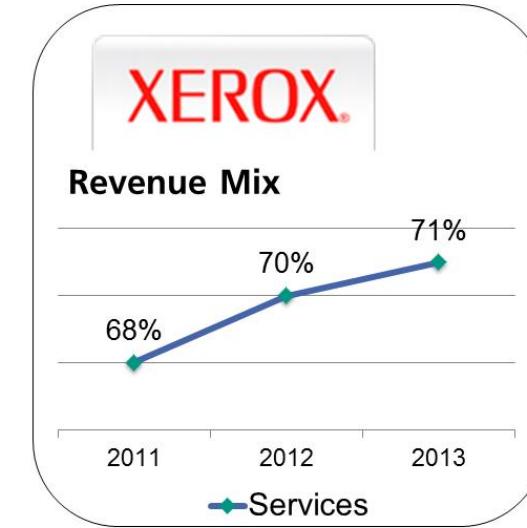
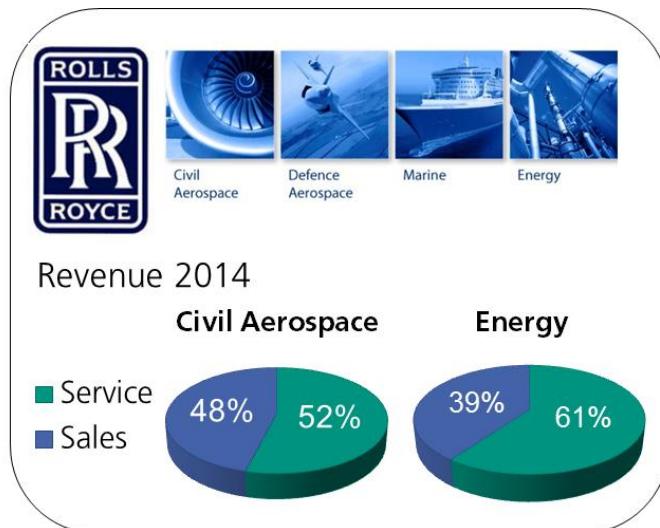
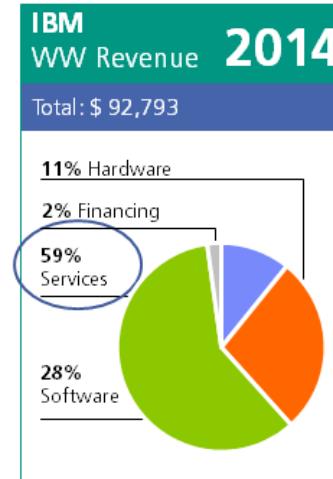
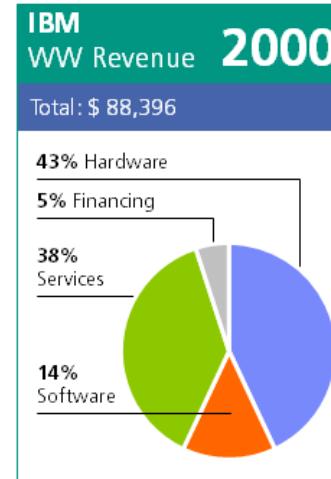
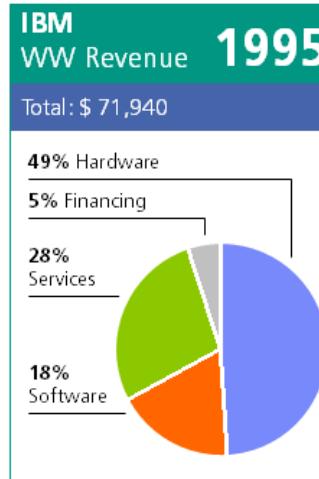


Product

Application

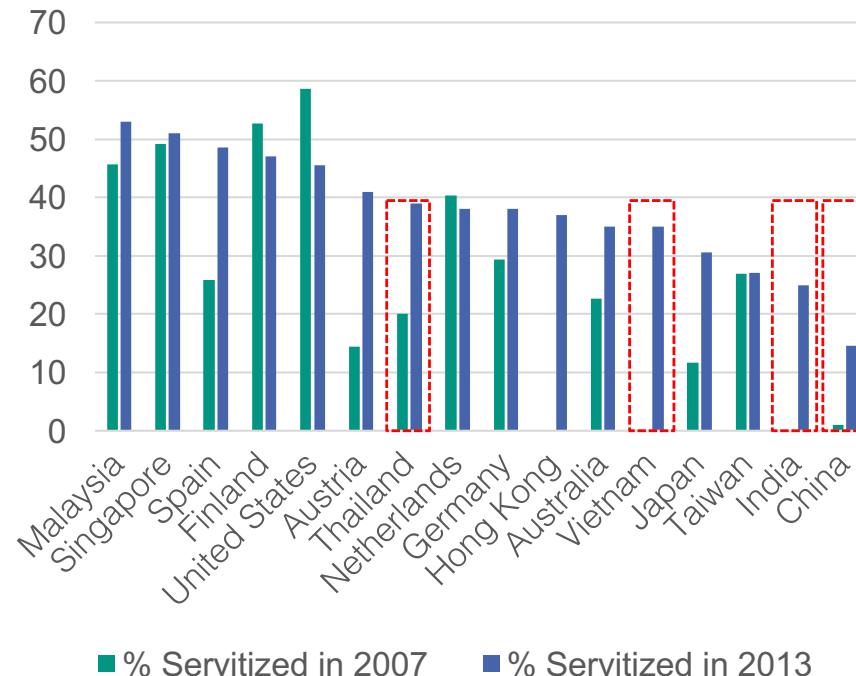
often a multiple of
product value

Servitization happens also within individual companies – even in places where you would not expect it



Servitization has reached almost every business & continent

Proportion of Manufacturing Firms that have servitized (2007 & 2013)



- Servitization – “the innovation of an organization’s capabilities and processes to shift from selling products to selling integrated products and services that deliver value in use” (Baines, Lightfoot, Benedettini, et al. 2009, p. 555)
- Servitization has been the leading trend in Europe to capture additional value and for differentiation from low-cost markets
- Motivations to servitize:
 - competitive motivations
 - demand-based motivations
 - economic motivations
- In this context, the integration of technology is becoming a crucial element for organizations to develop, integrate and deliver novel services, and advancing the original limits of servitization (Dinges et al. 2015)

Source:

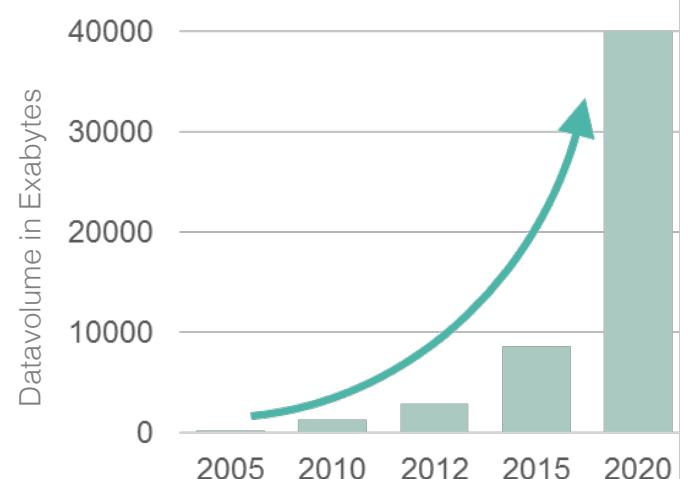
Dinges, V., Urmetzer, F., Martinez, V., Zaki, M., and Neely, A. 2015. “The future of servitization: Technologies that will make a difference,” (available at <http://cambridgeservicealliance.eng.cam.ac.uk/resources/Downloads/Monthly%20Papers/150623FutureTechnologiesinServitization.pdf>).

Baines, T. S., Lightfoot, H. W., and Kay, J. 2009. “Servitized manufacture: practical challenges of delivering integrated products and services,” in Proceedings of the Institution of Mechanical Engineers, Part B Journal of Engineering Manufacture (Vol. 223), pp. 1207–1215

A. Neely, “Exploring the financial consequences of the servitization of manufacturing” 2009

Big Data and Advanced Analytics holds great potential for existing businesses.

Estimate of worldwide data by 2020



Source: Turner et al. (2016)

Data Facts

- From 2013 to 2020, the digital universe will grow by a factor of 10
- Most of the digital universe is transient (e.g. unsaved Netflix or Hulu movie streams)
- Current driver of this development is the availability of:
 - Big Data (senors, social media, etc.)
 - Support enablement (methods and tools)
 - Capabilities (“Data science” educations)
 - Complementary technologies (cloud, mobile,etc.)

Source: Turner et al. (2014)

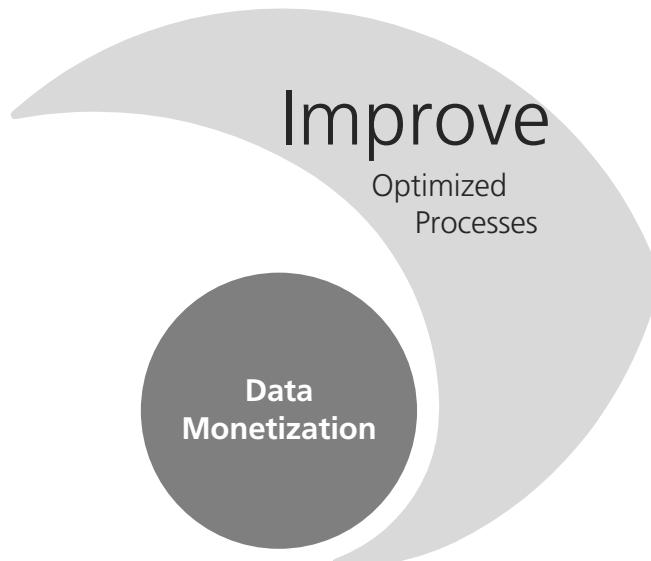
Impact on the business model

- There is potential for new data-driven business models such as, Data-as-a-service (DaaS) and Analytics-as-a-Service (AaaS)
- What does that mean for the business model of existing companies?

Turner, V., Gantz, J., Reinsel, D., and Minton, S. 2014. The digital universe of opportunities: Rich data and the increasing value of the internet of things., IDC (available at <http://www.emc.com/collateral/analyst-reports/idc-digital-universe-2014.pdf>)

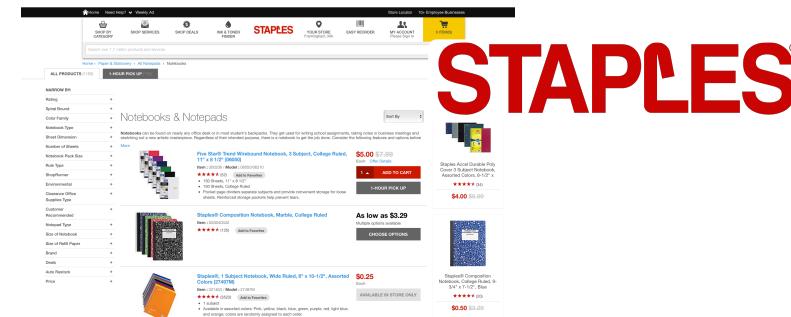
C. L. Philip Chen and C. Y. Zhang, “Data-intensive applications, challenges, techniques and technologies: A survey on Big Data,” *Inf. Sci. (Ny.)*, vol. 275, pp. 314–347, 2014.

Data monetization represents three distinct ways to make money



The use of data analytics to create operational efficiencies in processes and decision-making quality

Examples:



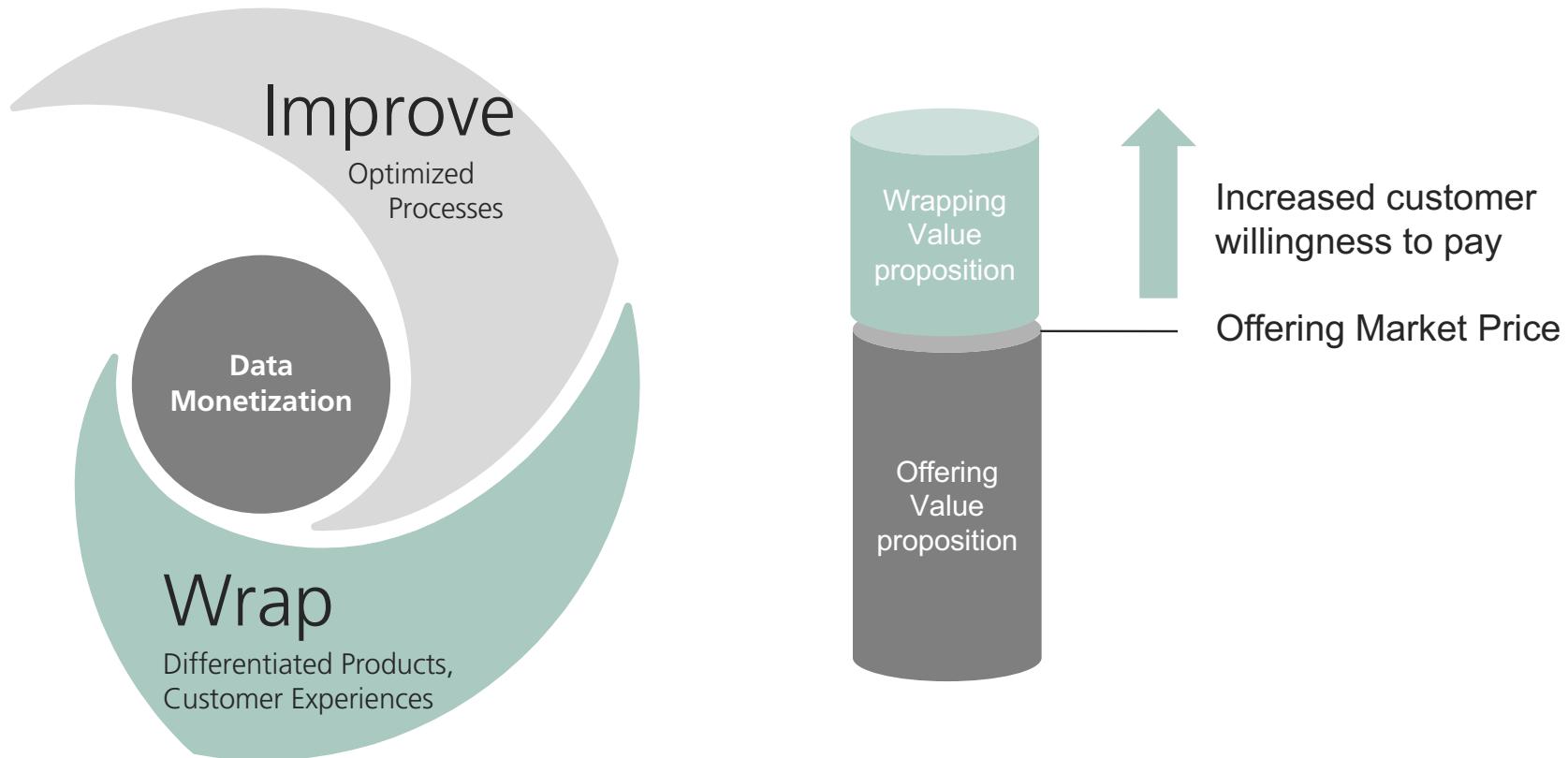
Source:

Wixom, B. and Schüritz, R. "Data Wrapping" MIT CISR Research Briefing November 2017 (forthcoming)

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Schüritz, R., Seebacher, S., Satzger, G. and Schwarz, L. "Datatization as the Next Frontier of Servitization – Understanding the Challenges for Transforming Organizations." Thirty Eighth International Conference on Information Systems (2017)

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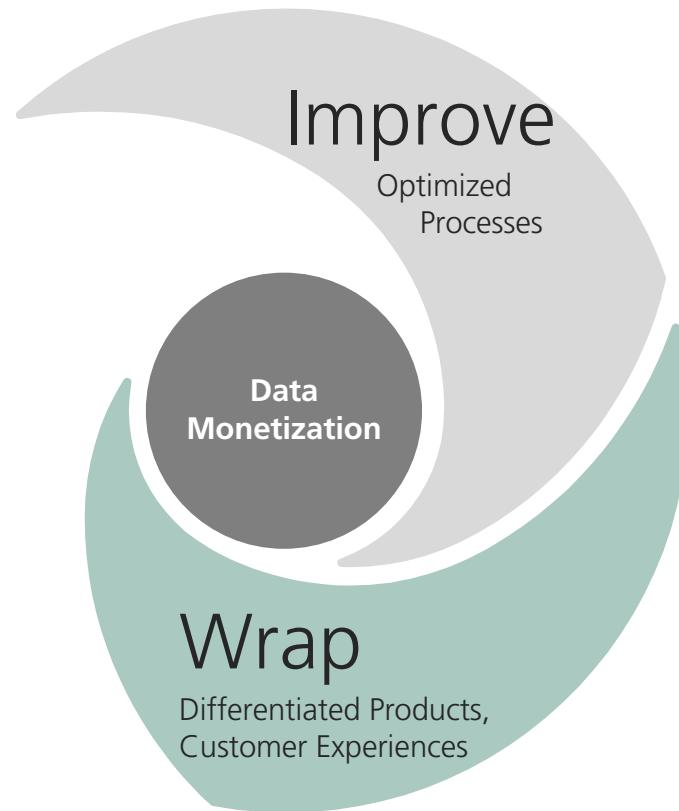
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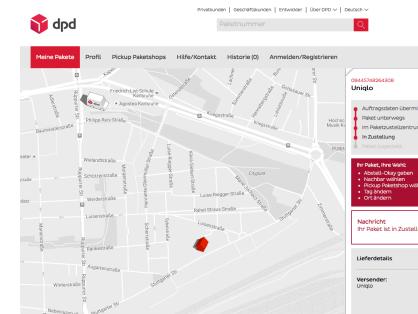
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Data monetization represents three distinct ways to make money



The use of data analytics to increase the value of an offering

Examples:



dpd



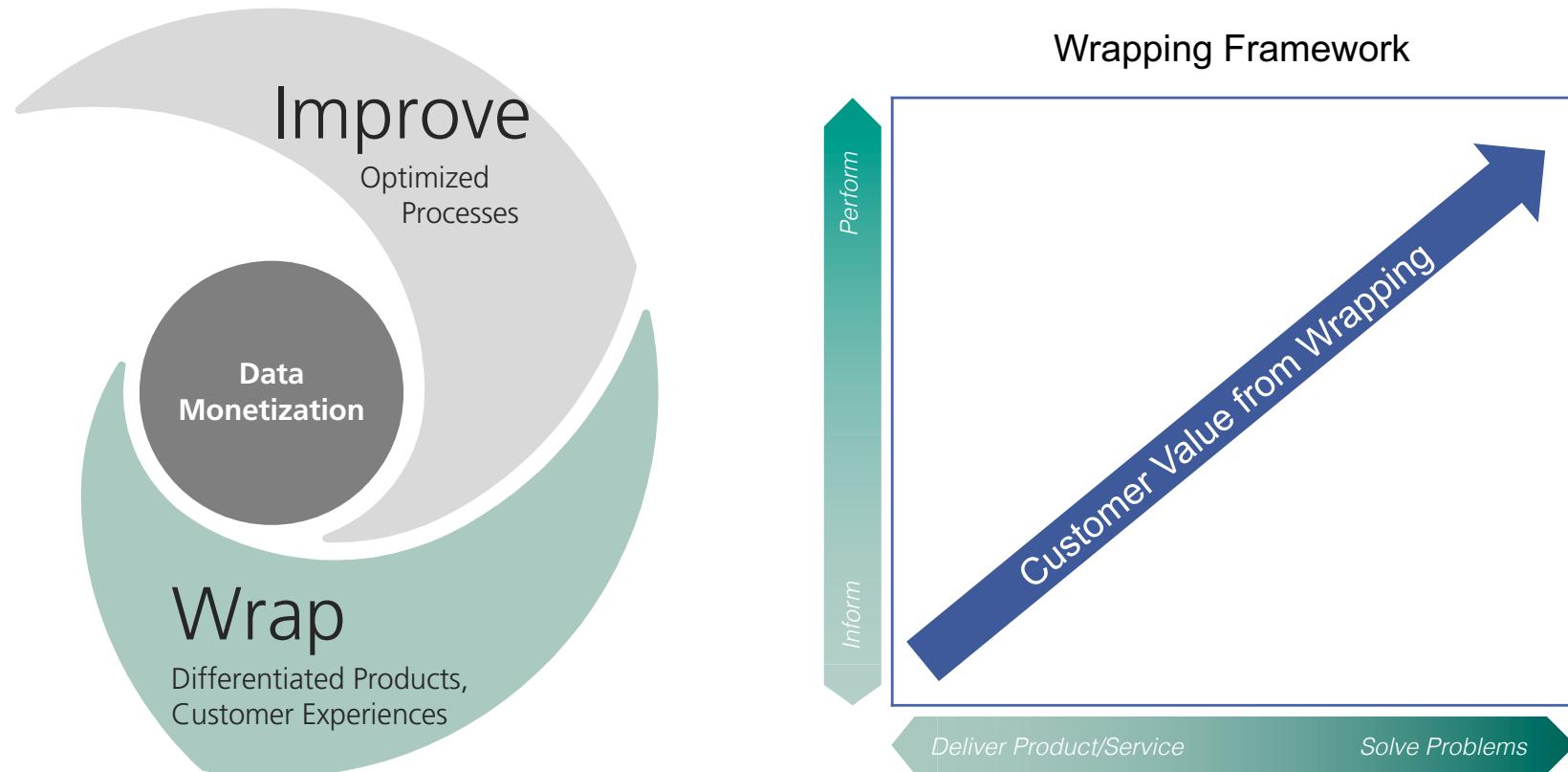
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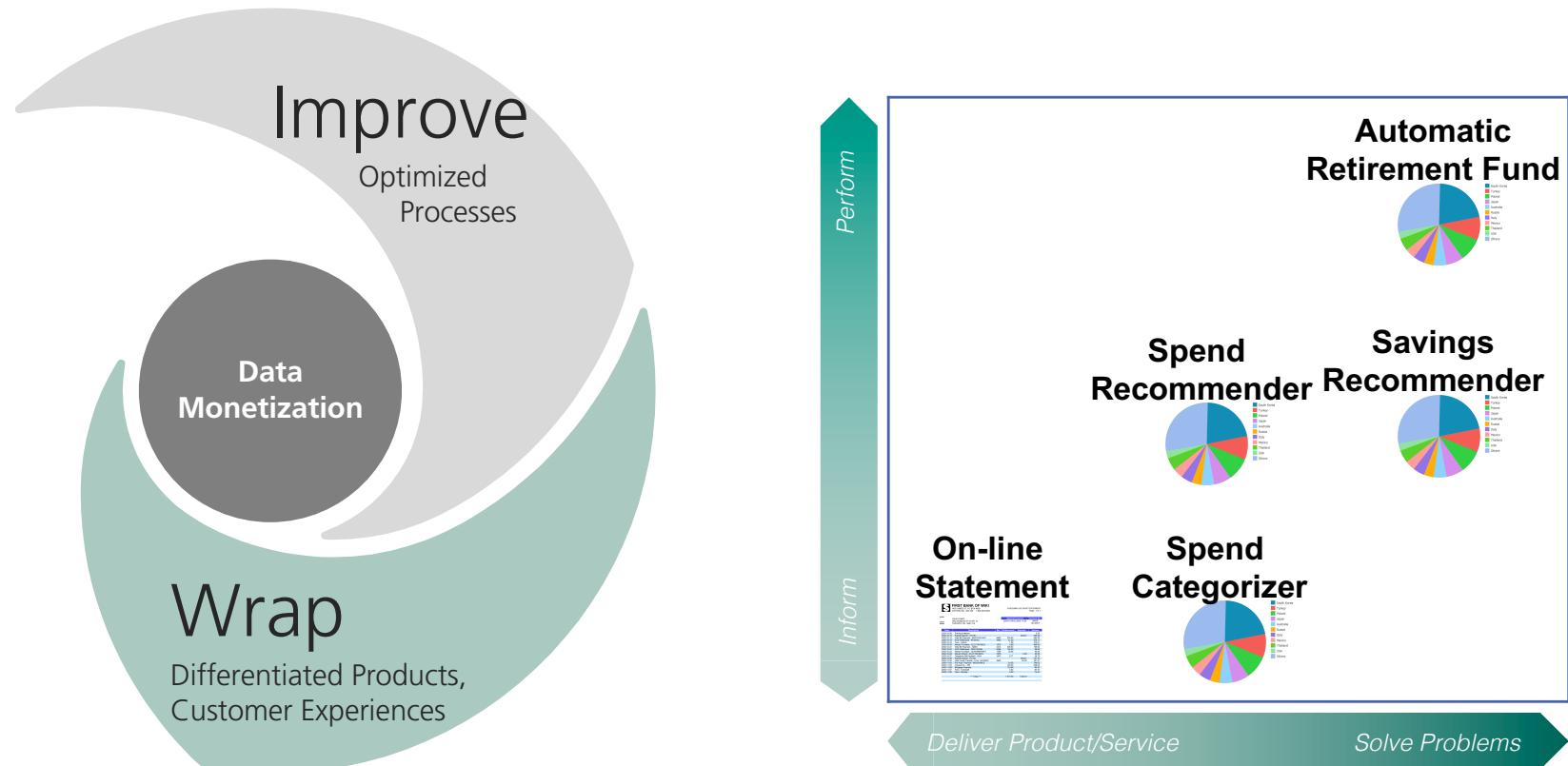
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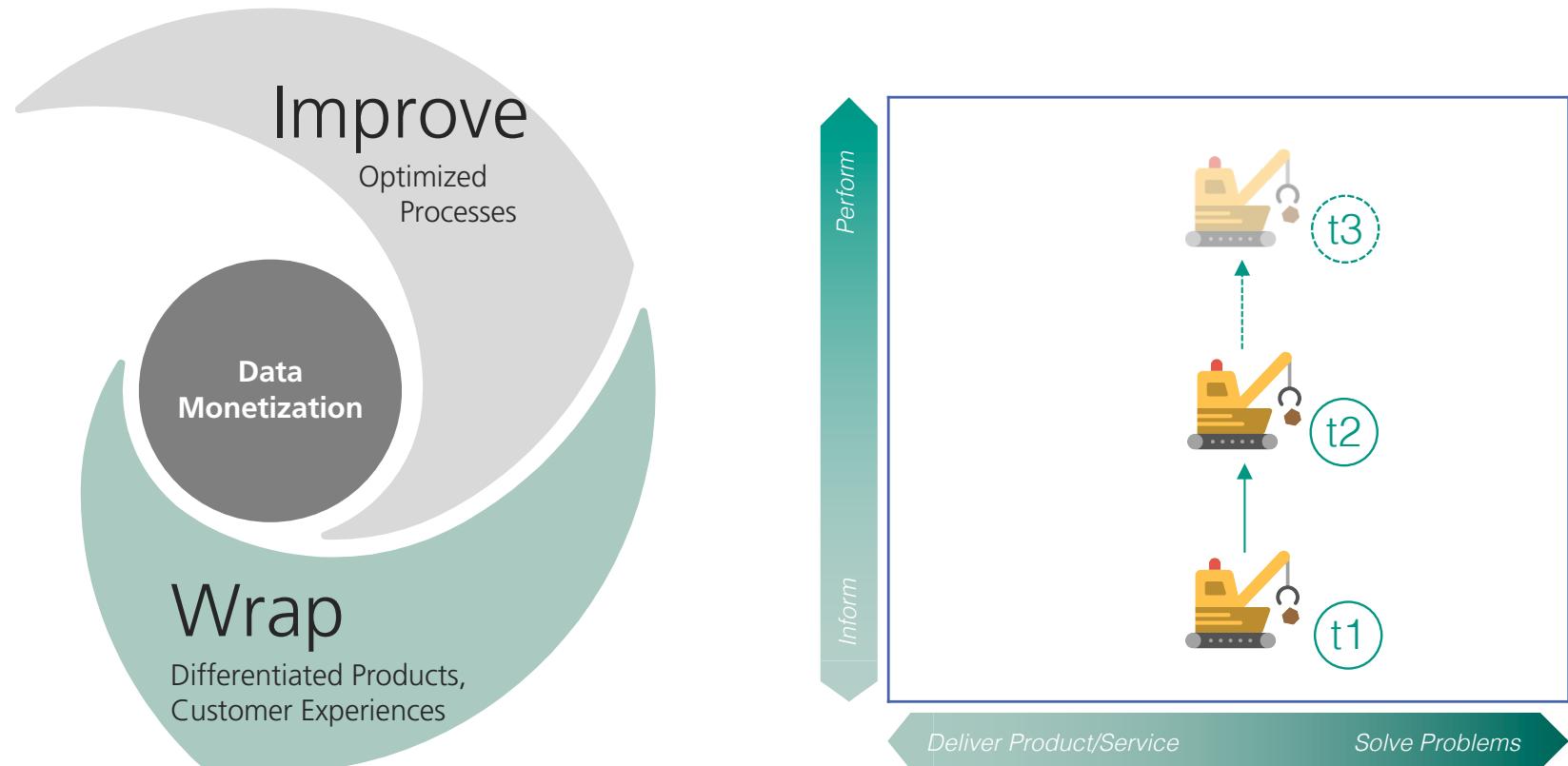
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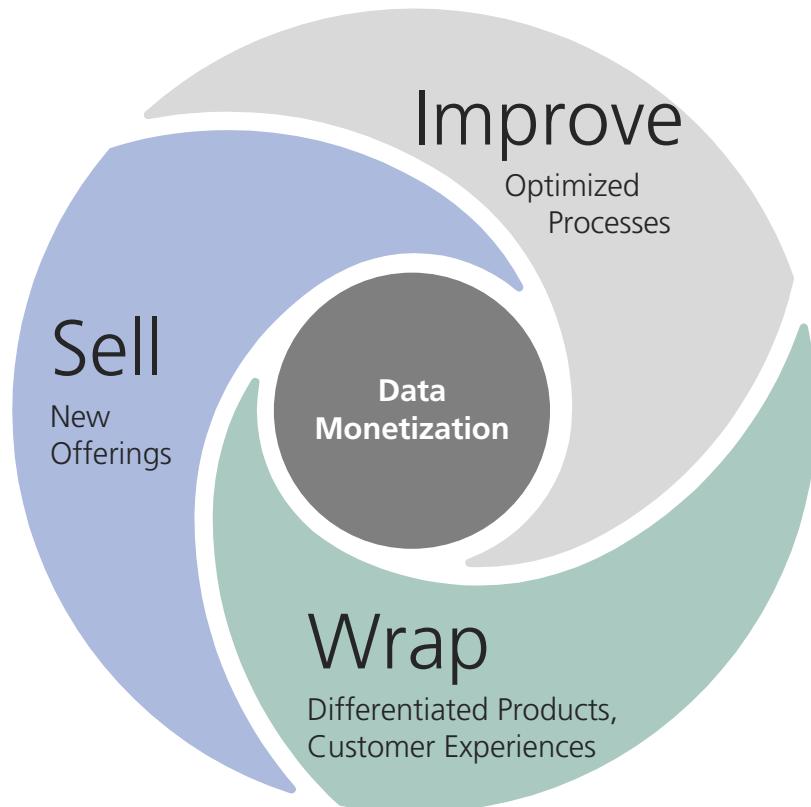
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Data monetization represents three distinct ways to make money



The use of data to sell information offerings to new and existing markets

Examples:



Telefonica



Source:

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Datatization an advanced step of servitization

	Product-focused organization	Servitized organization	Datatized organizations
Strategy	Product-focused organization	Integrated product-service-strategy	Additional data strategy
Network	Supplier-network	Partner-network	Partner-information-ecosystem
Customer Relationship	Short-term transaction based	Long-term with new customer facing roles	Deep relationships and new interfaces
Development practice	Product - oriented	Service - oriented	Analytics and software oriented
Skills & Capabilities	Manufacturing capabilities	Customer facing skills	Data science, IT infrastructure capabilities and software development skills
Revenue stream	One revenue stream	Additional stream or replacing existing one	Additional stream and indirect pay-off through product/service uplift

Source: Schüritz, R., Seebacher, S., Satzger, G. and Schwarz, L. "Datatization as the Next Frontier of Servitization – Understanding the Challenges for Transforming Organizations." Thirty Eighth International Conference on Information Systems (2017)

Thank you – Please get connected!



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