

FashionBrain: Understanding Europe's Fashion Data Universe

Gianluca Demartini
Senior Lecturer in Data Science
University of Sheffield, UK

FashionBrain Consortium



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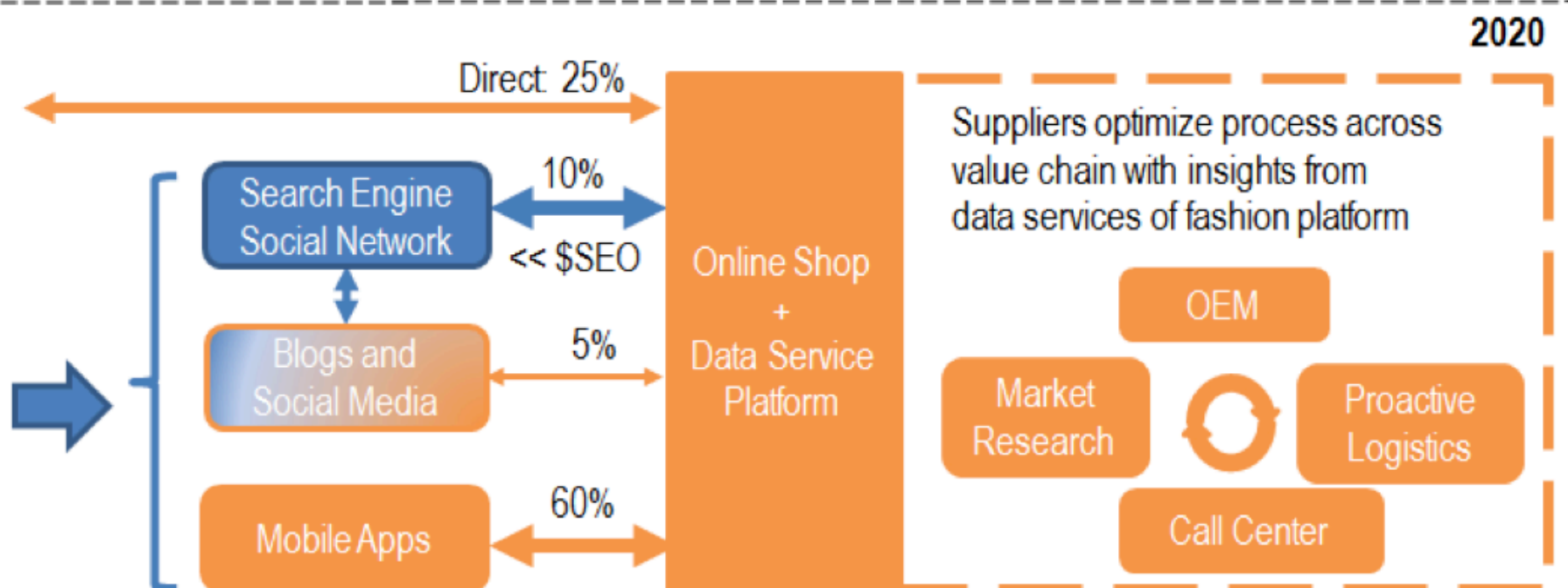
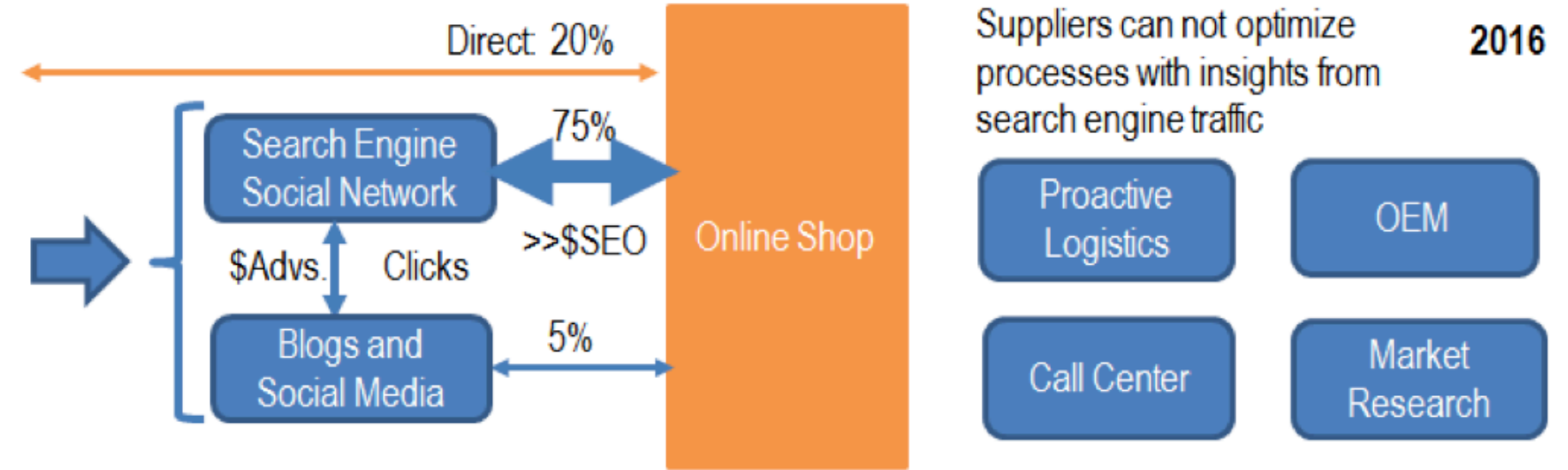


Project Duration 2017-2019. Funded under the H2020-ICT-14-2016 topic Big Data PPP: cross-sectorial and cross-lingual data integration and experimentation. Total cost: 2.9M EUR.

Customer

Enters in Online Shop via Channel...

Value Chain & Suppliers



Data Challenges in the Fashion Industry

- **Data is not used in an integrated fashion**
 - Data is stored in silos
 - Each data source owns data in different formats and platforms
- **Search engines dominate** customer behaviors
 - Search engines and social network companies are in a strong position to settle a new global monopoly on customer understanding thanks to AI technology
 - Retailers have limited access to customer data
- **Fashion bloggers influence** customer choices
 - Limited understanding on bottom-up changes in fashion
 - Shift from traditional stylist-driven fashion

FashionBrain Objectives

- Novel Shopping Experience: **Make Images Searchable**
 - Product search and recommendation
 - Moving away from the 'real human shop assistants'
- Shift Traffic away from Web Search Engines to **Retailer's Mobile Apps**
 - By providing custom shopping experiences and advanced search tools
- Detect Influencers and **Predict Fashion Trends**
 - Time Series Analysis
 - Social Media data
- **Share Insights** with Cross Industry Partner Network
 - Data Integration infrastructure based on HDFS and column stores

Exploitation of Business Data Assets

- Data integration and value creation across
 - Shop Inventory of around 100 online shops
 - Social Media (Fashion bloggers)
 - User reviews about fashion products in 11 languages
 - Product catalogs
 - OEM manufacturer information
 - Sales data
 - Web crawls
 - Crowd-generated data

Measurement of data exploitation

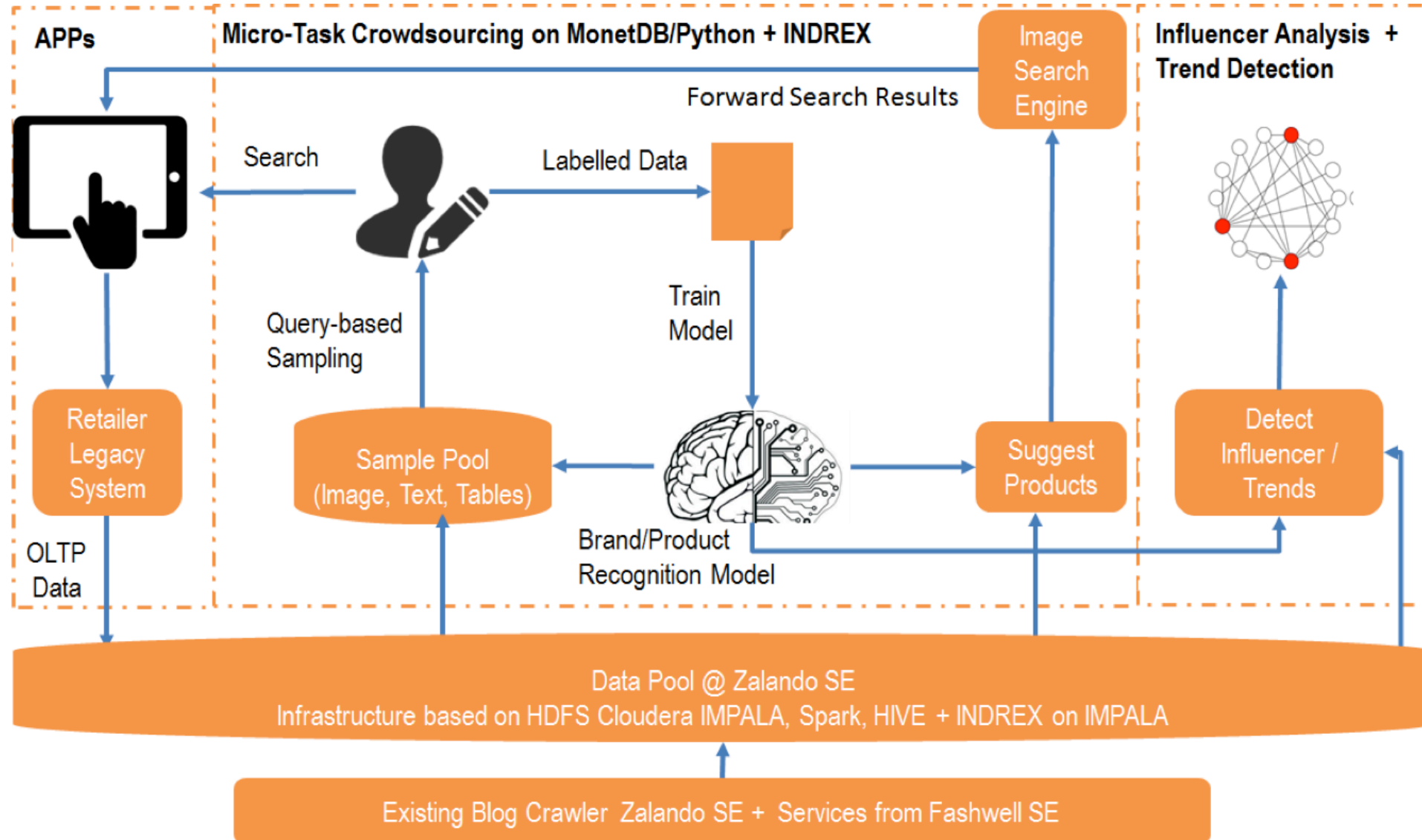
- Demos; Algorithms; Impact on sales;

Data asset	Exploited by	Impact on business partners
Shop Inventory of around 100 online shops	Fashwell	Used for Photo-based product search demos
Social Media (Fashion bloggers)	Fashwell	Used for Photo-based product search demos
User reviews about fashion products in 11 languages	Zalando	Demonstrator of text join and relation extraction methods
Product catalogs	Zalando	Used for Photo-based product search demos
OEM manufacturer information	Zalando	Supply chain optimization
Sales data	Zalando	Time Series analysis; Trend detection demo
Web crawls	Beuth	Identification of fashion-related content; Demonstrator of text join and relation extraction methods
Crowd-generated data	All	Used for Photo-based product search demos; Trend detection demo

FashionBrain - Data Value Chain


- **New data** entity-centric **integration methods**
 - Named Entity Recognition and Linking across sources
- New Data Technology
 - **Time Series Analysis** for Fashion Trend Detection
 - **Deep Learning** based Text Mining
- Data-driven **demos**
 - Search by Image
 - Product Recommendation

FashionBrain - Searching and shopping query workflows




FashionBrain - Photo-based product search


SHOP THE LOOK ×




Ray-Ban
149,95 €




Gipsy
199,95 €




Lyle & Scott
139,95 €




Shine Original
29,95 €




DIESE LOOKS KÖNNTEN DIR AUCH GEFALLEN
Aktuell sind leider keine weiteren Looks verfügbar.



Brooklyn's Own by Rocawear
39,95 €




Won Hundred
134,95 €



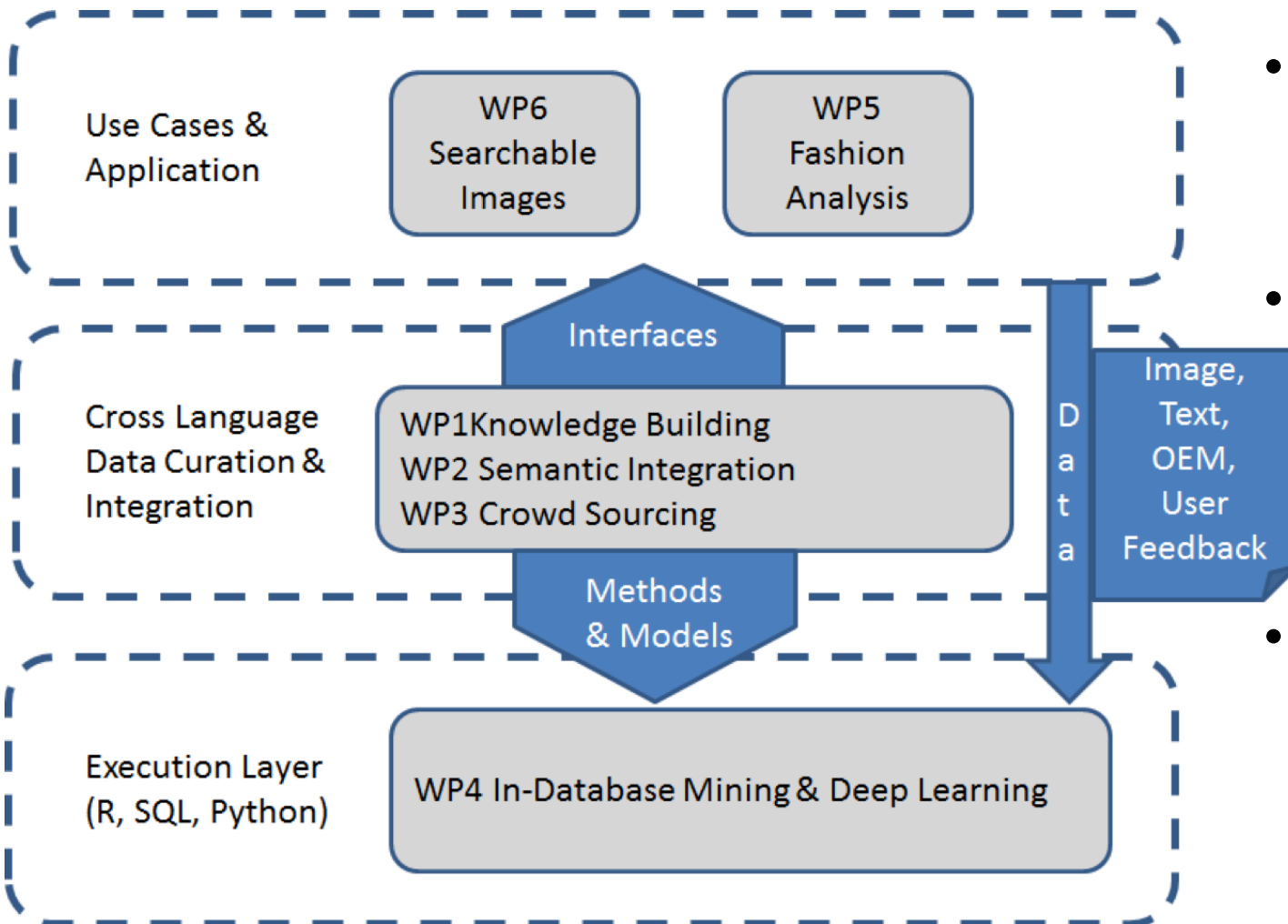
adidas Originals
99,95 €

Das passt dazu



Brixton
59,95 €

FashionBrain Project Roadmap



- Year 1 - Foundations
 - Requirement Analysis
 - FashionBrain Schema
 - Datasets
- Year 2 – Core techniques, data, demos
 - Named Entity Recognition and Linking
 - Time Series Analysis for MonetDB
 - Crowd Data Aggregation
 - Social Media Annotations
 - Demos
- Year 3 – Advanced applications
 - Relation Extraction w/ Deep Learning
 - Final Demos (Trend Prediction, Search)
 - Business Plan

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