

### **BUILDING ANALYTICS TEAMS**

PROF. DR. FLORIAN STAHL











# How Analytics Teams Are Built and Set Up for Success



- 1. Building blocks of a successful analytical competence
- 2. Transformation to create successful analytical competence
- 3. Develop key factors for building analytics teams
- 4. Manage and lead analytical projects successfully



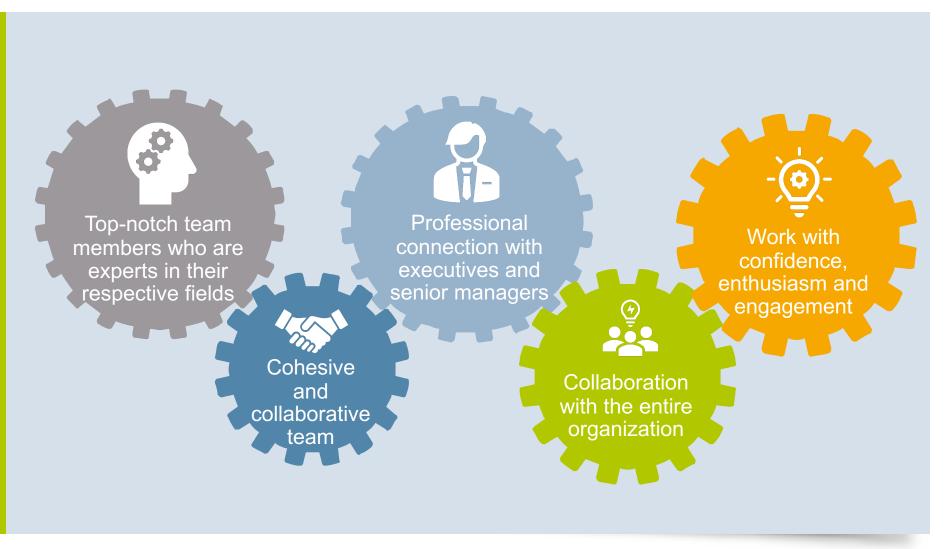






## **Characteristics of a High-Performing Analytics Team**









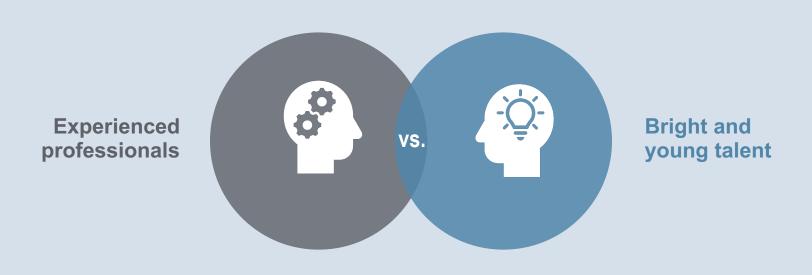






## Staffing an Analytics Team: How to Win the War for Big Data Talent (1/3)

## Simply collecting Big Data does not unpack its potential value – people do!







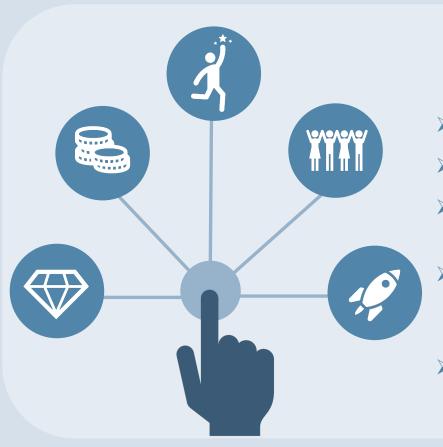






## Staffing an Analytics Team: How to Win the War for Big Data Talent (2/3)





What should companies do to recruit, retain and inspire Big Data talent?

- Recognize the value of the professional
- Offer competitive compensation level
- Provide an upward career path or an attractive alternative
- Ensure an environment of intellectual challenge, collegiality, and extensive connection with other peers
- Allocate ≥ 20% of the work to innovation, and creating "data-forward" insights











## Staffing an Analytics Team: How to Win the War for Big Data Talent (3/3)















### Staffing an Analytics Team: Talent Retention

For talent retention, one of the most important factors is **personal development**:

Create opportunities for personal development and freedom to innovate



Corporate
vision on big
data usage and
building up
analytical
competence

Develop attractive career opportunities inside and outside the analytical departments.







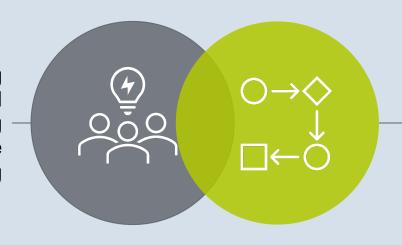




### **Scalable Analytics**

### Options to work around the shortage of analytical talent:

Train existing employees in the field of traditional marketing research and database marketing



Ensure effective work processes within organizations and automate specific processes



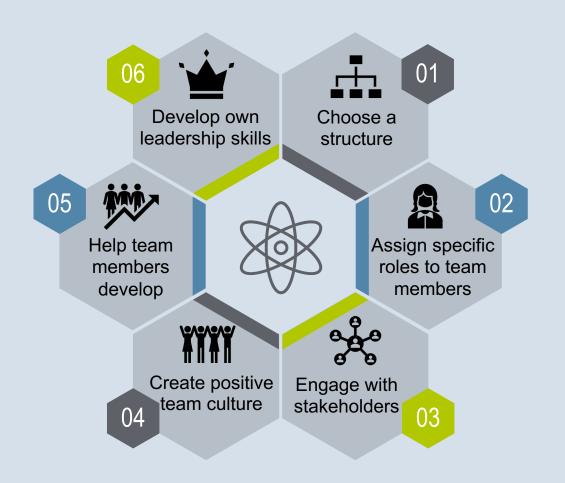






### How to manage data teams – 6 steps







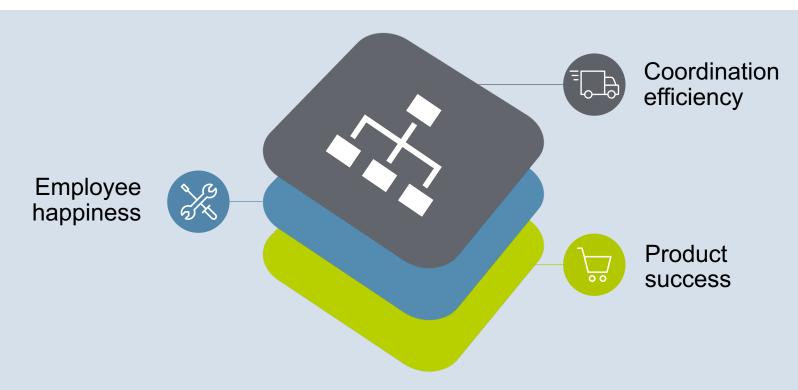












"A Data Science team isn't just the people, it is the process and the interaction of the team with the rest of the company"

dj patil









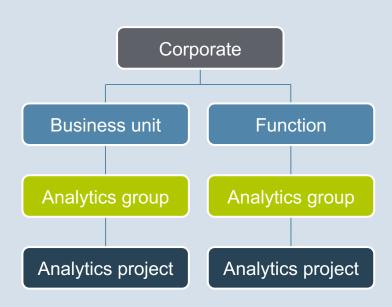


### Step 1:

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### The Decentralized / Embedded Model





- Independence
- No ownership and motivation issues
- Management complexity
- Underutilizing technologyand data science deprioritization
- Local rather than global optimization





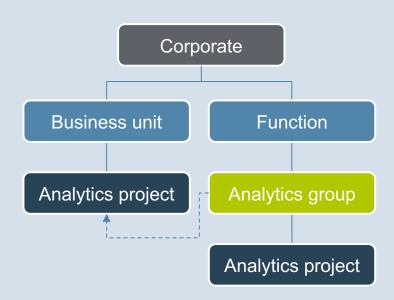






## **Step 1: The Functional Model**





- Startups
- Few analytical processes
- Keeping off from the global company's pain
- Weak cohesion due to absence of data manager





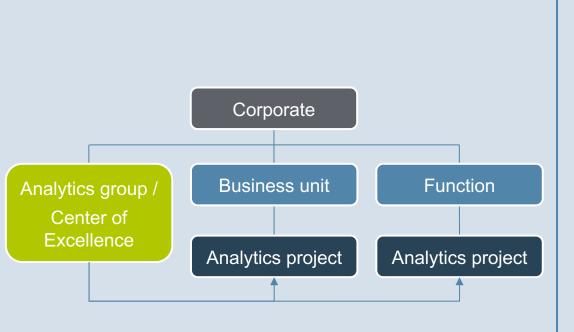






### The Centralized / Center-of-Excellence Model (CoE)





- Increasing demand for analytics
- Out-of-the-box thinking and real innovations.
- Difficulty in closing the loop
- Chance of becoming isolated



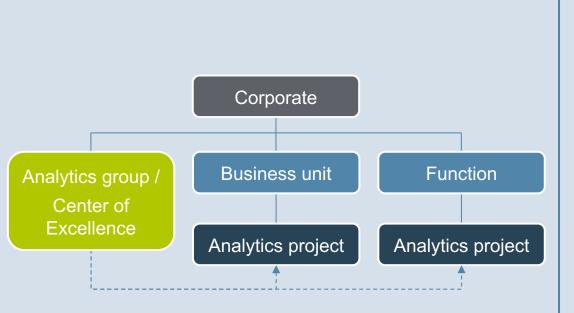






## Step 1: The Consulting Model





- Easy and cheap
- Suitable for small- to mediumscale data science tasks
- Low-motivation trap
- Uncertainty
- No subject-matter experts



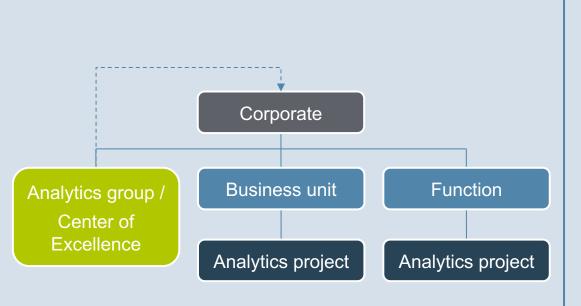






## Step 1: The Accounting Model





- Constant measuring of KPIs
- Business-wide focus
- Missing the small stories
- Underutilizing technology







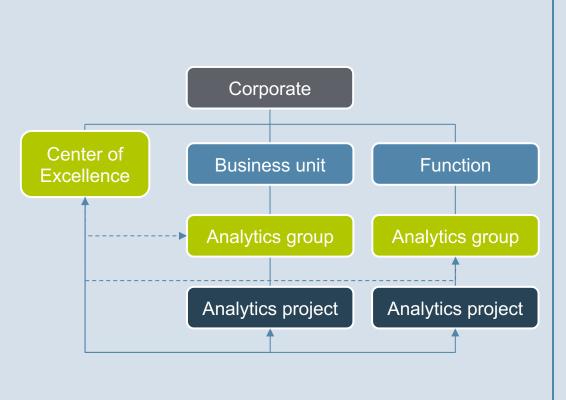




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## The Hybrid / Federated Model (Product Data Science Model)





- Clear ownership, actionable insights, and speed
- Global optimization
- Cost
- Recurring conflicts due to lack of power parity



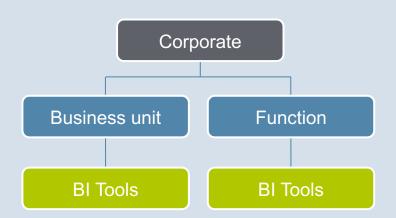






## **Step 1: The Democratic Model**





- Makes work with data simpler
- Frees up data analysts
- High investment
- Difficulty in mastering everything

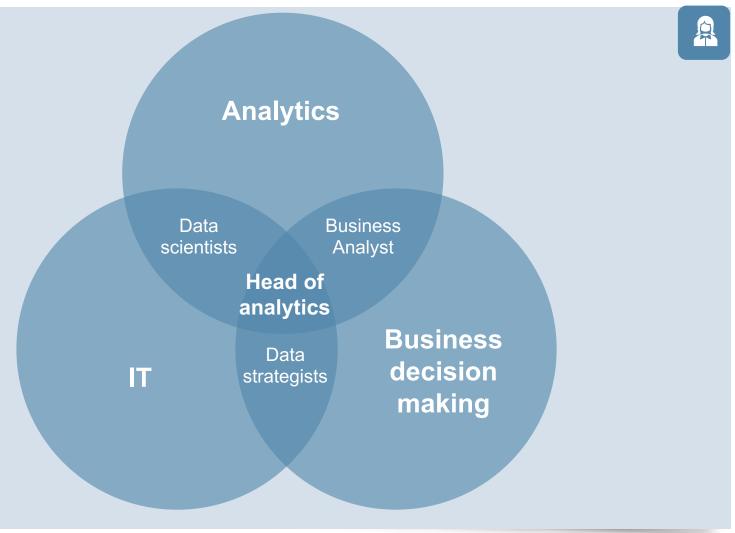








# **Step 2: Highly Qualified Teams Require a Mix of Skills and Expertise**













# Multi-disciplinary Skills of a Modern Data Analyst



- Statistical modelling
- Supervised and unsupervised learning
- Applying ML techniques



Analytical Capabilities



Business Sense

- Understand KPIs
- Industry-specific knowledge
- Organization sensitivity

- Computer science fundamentals
- R, Python, SQL, ...



Data & Tools



Communication & Visualization

- Story-telling skills
- Advisory skills
- Visual art design





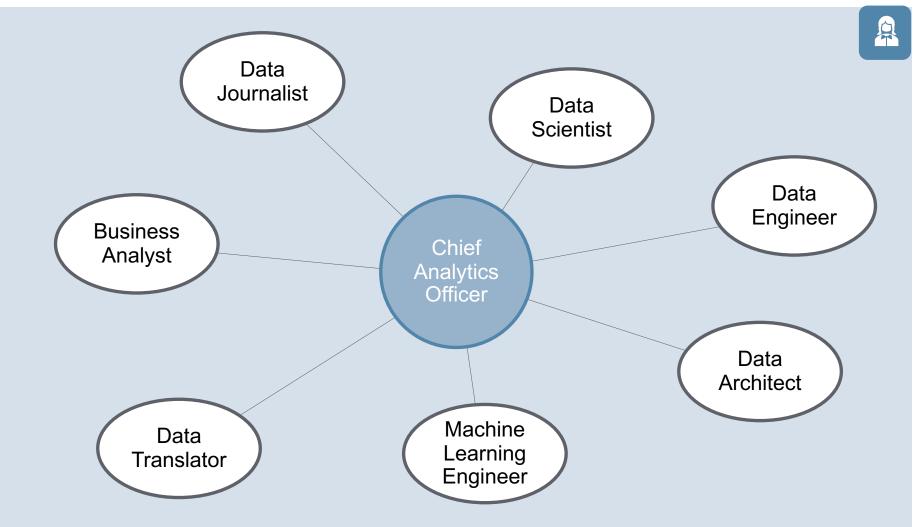






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# What roles should a data analytics team have?









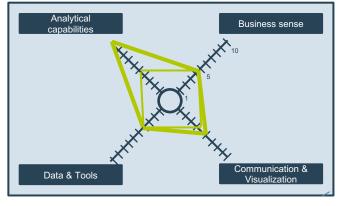




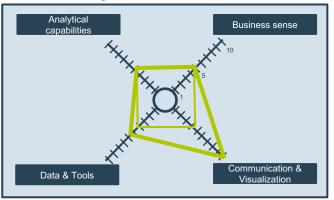
# Typical Profiles in Working Fields of Analytics



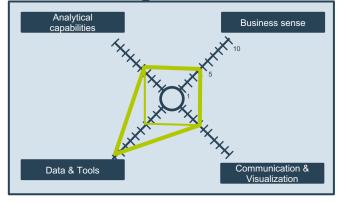




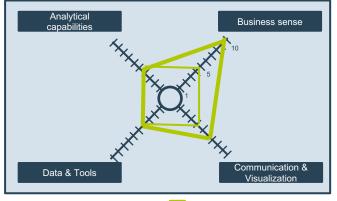
### The 'data journalist'



### The 'data-engineer'



### The 'data translator'



Required base level











### **Step 3: Engage with stakeholders**





"The goal of work is some output—a strategy, product, marketing plan, budget, account plan, sale, feature, etc. Communication is a way of incorporating stakeholders into a plan \*before\* it is too far along to change or the cost is too high (or coworkers too angry!)"

Steven Sinofsky







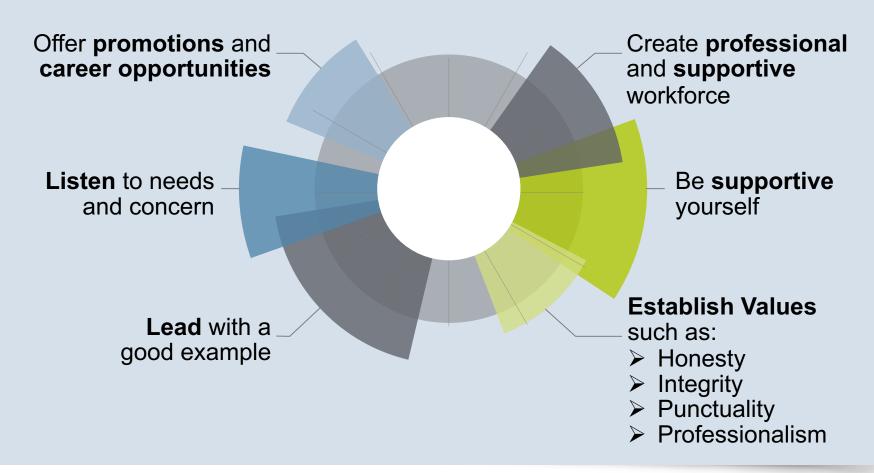




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## Step 4: Create a positive team culture and work environment







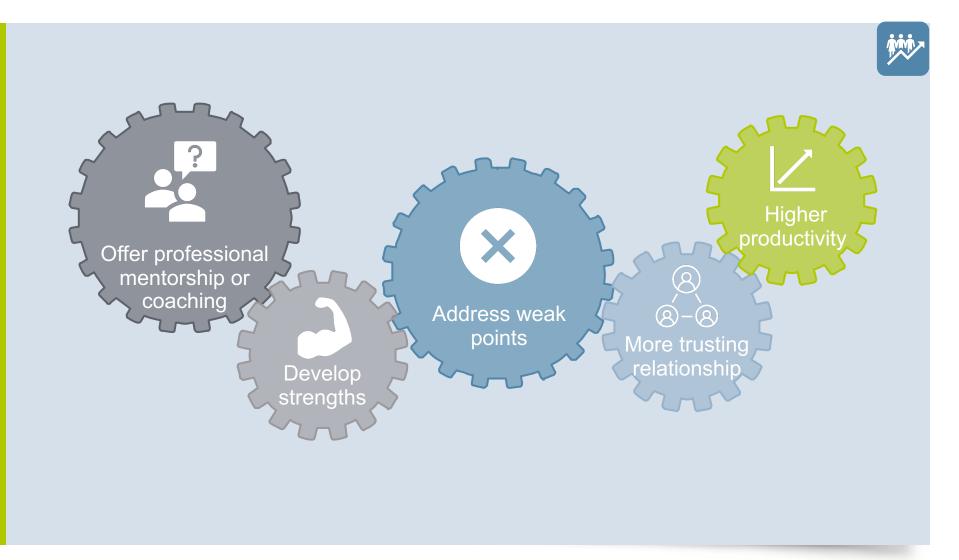








### Step 5: Help team members develop their skills BUSINESS SCHOOL









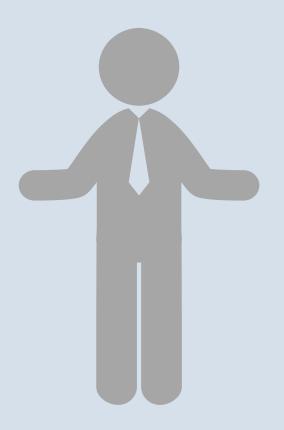




### **Step 6: Leadership in Analytics Teams**







Leadership is key for an analytical vision, data-based decision-making and continuous improvement



Analytics leaders are people who attract, evaluate, hire, manage, fire, lead, and direct and encourage all aspects of the daily operations of advanced analytics teams











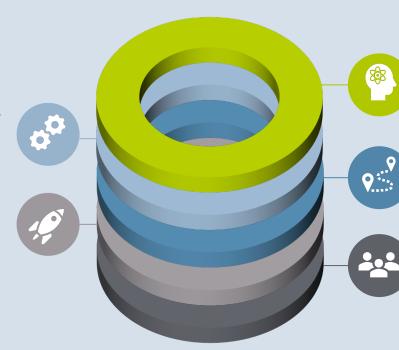
### **Leadership in Analytics Teams**





Undertake activities related to vision, direction, etc. of analytics projects

Have general mastery of analytical techniques



Possess business expertise

Communicate the best path forward

Understand, synthesize and communicate the value of work streams to a wide range of people











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# **Key Traits of Leaders in the Field of Business and Analytics**





### Consistency



Enables trust in the leader



### **Passion**

Passion and emotions can be motivating forces

Extreme emotions should only be embraced internally



## Curiosity

Curiosity sparks passion and better collaboration

Drives engagement and happiness in team



### **Ownership**

Every action has an impact and can redirect situations

Builds role-models for responsibility



**Variety** 

- Breadth of understanding and expertise are valuable
- Enables anticipation of issues and great problem solving











# How to Lead a Successful Data Analytics Team

#1 #2 #3 Point data Decide on a Create a science teams clear commontoward the evaluation sense baseline first right problem metric up front Manage data Check for 'truth science and projects like consequences' research #5 #6 #4









