



Balanced development in large teams

Vladimir Grinenko

Dev<Talks/>, 6 June 2019, Bucharest



快手

Vladimir Grinenko

- › Head of common components development at Yandex
- › More than 40 developers in 5 teams in 3 cities
- › Open source contributor



Image



Video



Ma



Maps



OpMetrika



[translate](#)

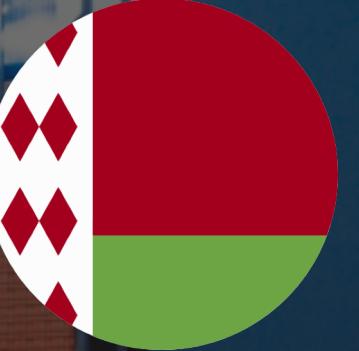
Yandex

|  Search

Our Locations & International Operations Today



27 offices
9 countries



Over **10 000**
employees

About **50%**
software developers



Yandex

- › Google
- › Uber
- › Spotify

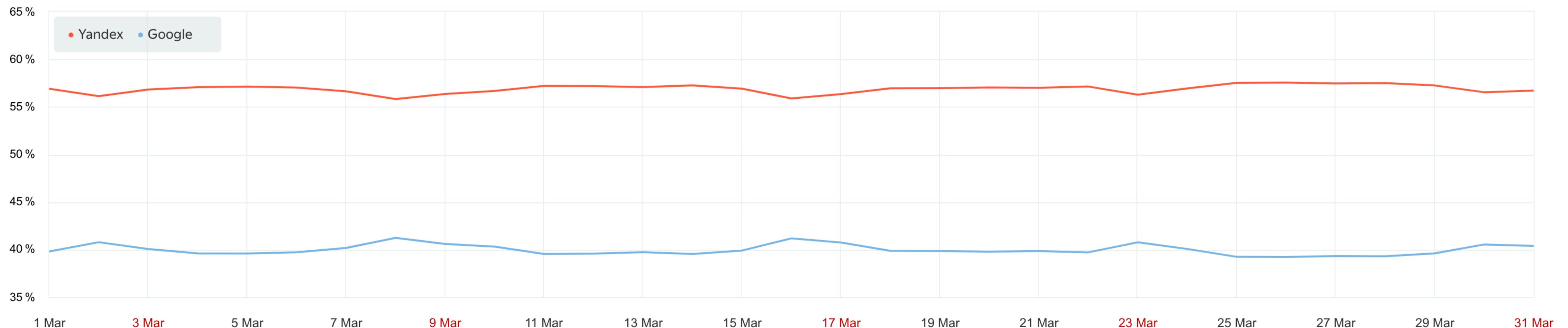
Search engines in Russia ▾

based on Yandex.Metrica data with a delay of 7 days

Month Year All time **mar 2019** By day ▾

All device types ▾ All platforms ▾

Percentage of sessions



Search engines for **the last day: 31 Mar** ▾

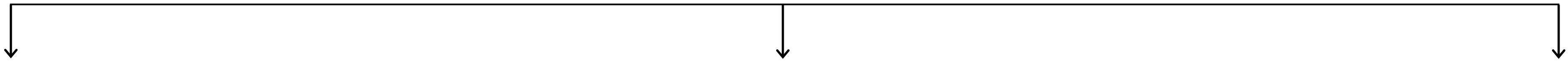
Sessions Percentage

		Sessions	Percentage
<input checked="" type="checkbox"/>	Yandex	149 589 913	56.71 %
<input checked="" type="checkbox"/>	Google	106 533 350	40.39 %
<input type="checkbox"/>	Mail.ru	4 120 362	1.56 %
<input type="checkbox"/>	Rambler	432 369	0.16 %
	Other	3 113 800	1.18 %

Yandex services

- › Web: search, browser, music, social...
- › E-commerce: Market, Beru, Bringly...
- › Taxi and carsharing
- › Food delivery
- › Hardware: Station, Phone, Auto
- › AI: Alice, self-driving cars...

Yandex



Search



Alice



Taxi



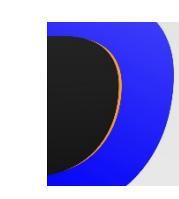
Food



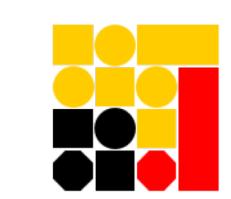
Market



Zen



Drive



Education



Browser



Weather

Classifieds

Media Content



Health



Cloud



Ad Tech



Auto.ru



Jobs



Realty



Music



KinoPoisk



Afisha

...

Personal services

Geoservices



Disk



Mail



Maps



Navi



Transport

...

 Авиабилеты

 Автобусы

 Авто.ру

 Аудитории

 Афиша

 Банковская карта Яндекс.Денег

 Беру

 Брингли

 Вебмастер

 Взгляд

 Видео

 Время

 Голосовой помощник Алиса

 Денежные переводы

 Деньги

 Дзен

 Директ

 Диск

 Дисплей

 Доставка

 Драйв

 ЕГЭ

 Маркет

 Метрика

 Музыка

 Народная карта

 Недвижимость

 Новости

 Облако

 Партия еды

 Патенты

 Переводчик

 Планы

 Погода

 Поиск

 Поиск для сайта

 Поиск людей

 Поиск по блогам

 Почта

 Почта для домена

 Практикум

 Пробки

 Путешествия

 Работа

 Справочник

 Статистика

 Сувениры

 Такси

 Такси для бизнеса

 Телепрограмма

 Телефония

 Технологии

 Толока

 Трекер

 Формы

 Фотки

 Штрафы

 Яндекс.DNS

 Яндекс.Авто

 Яндекс.Браузер

 Яндекс.ОФД

 Яндекс.Учебник

 AppMetrica

 XML

 Yandex Data Factory

 Еда

 Ж/д билеты

 Здоровье

 Знатоки

 Интернетометр

 Календарь

 Картинки

 Радар

 Радио

 Район

 Расписания

 Реклама

 Рекламная сеть

 Репетитор

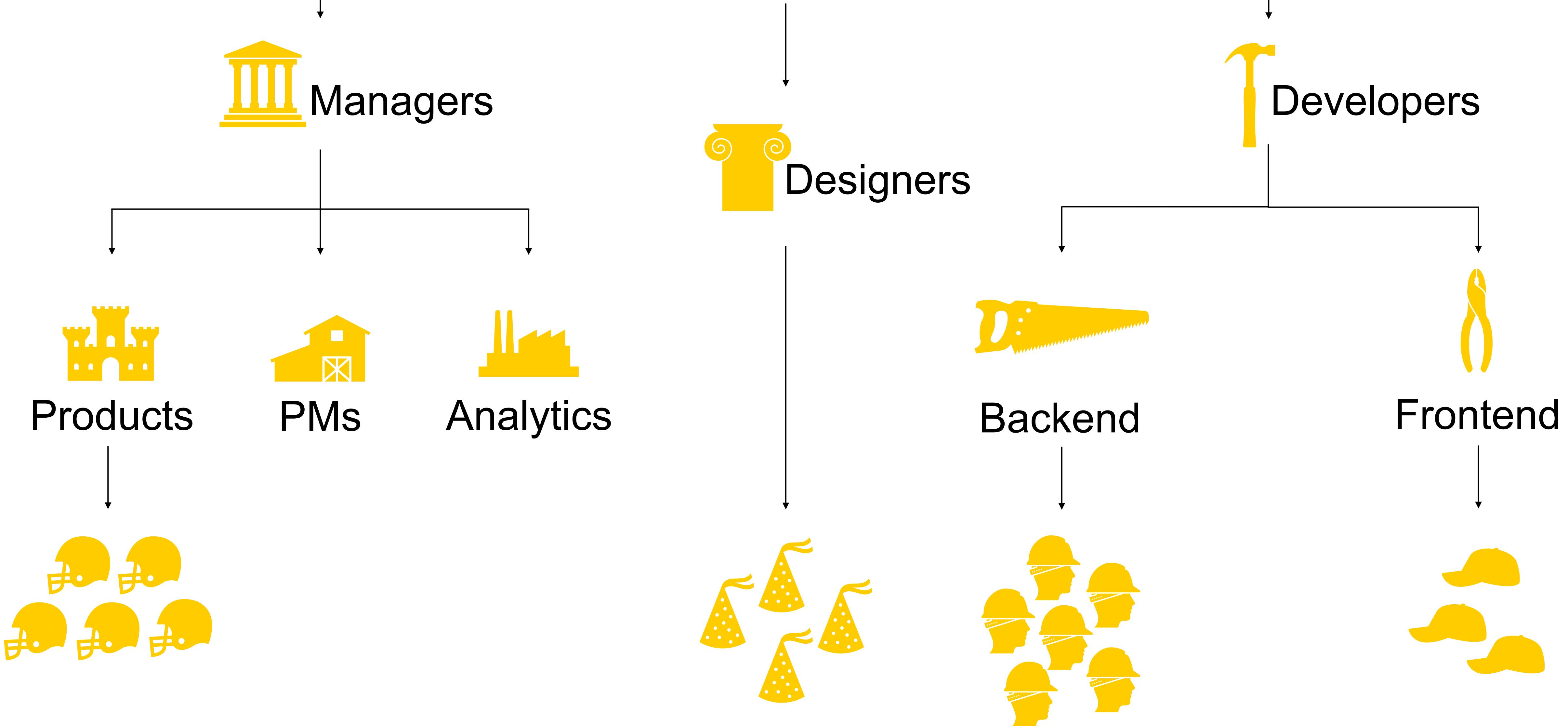
Huge is difficult to manage

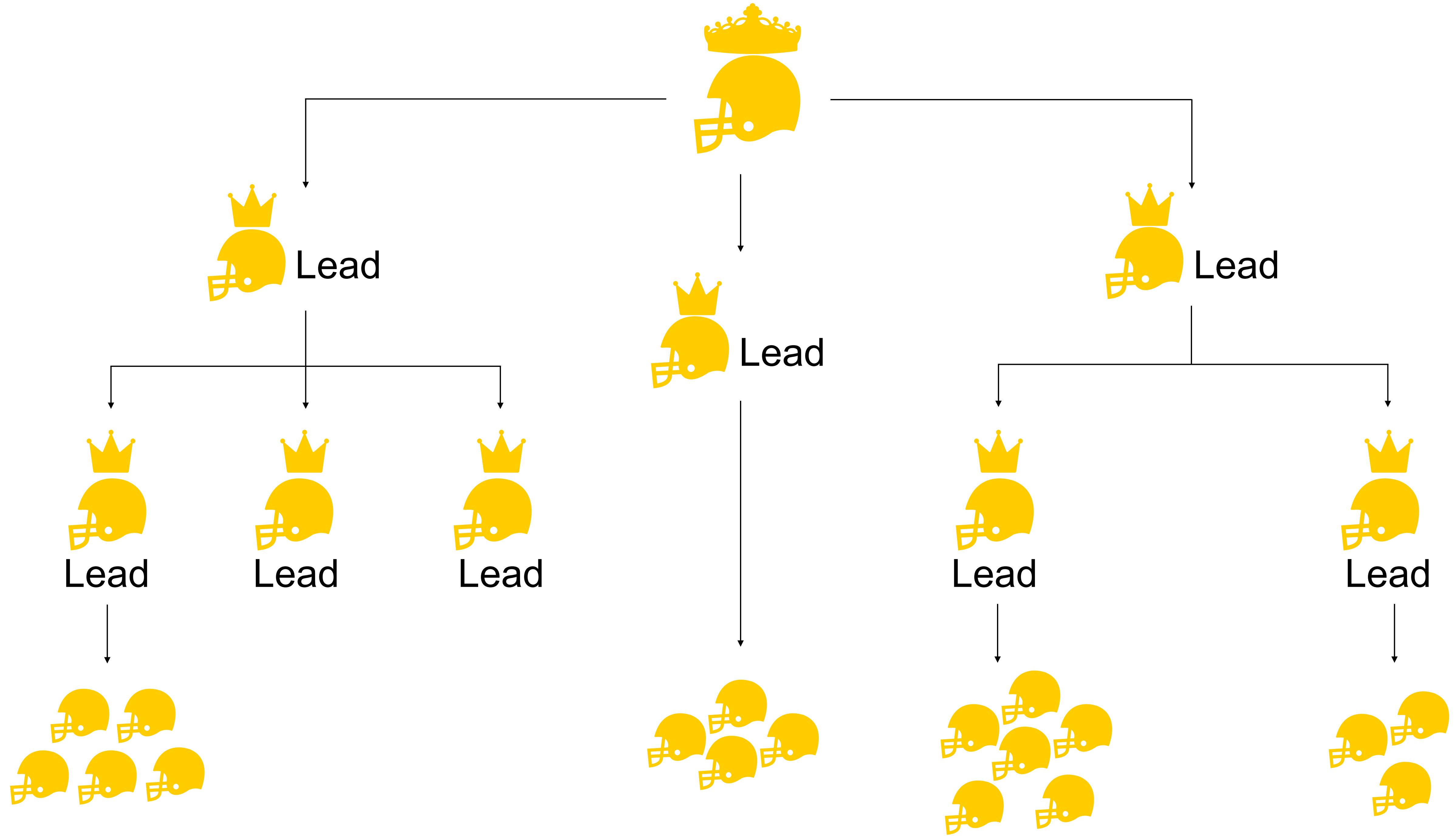
Long time ago

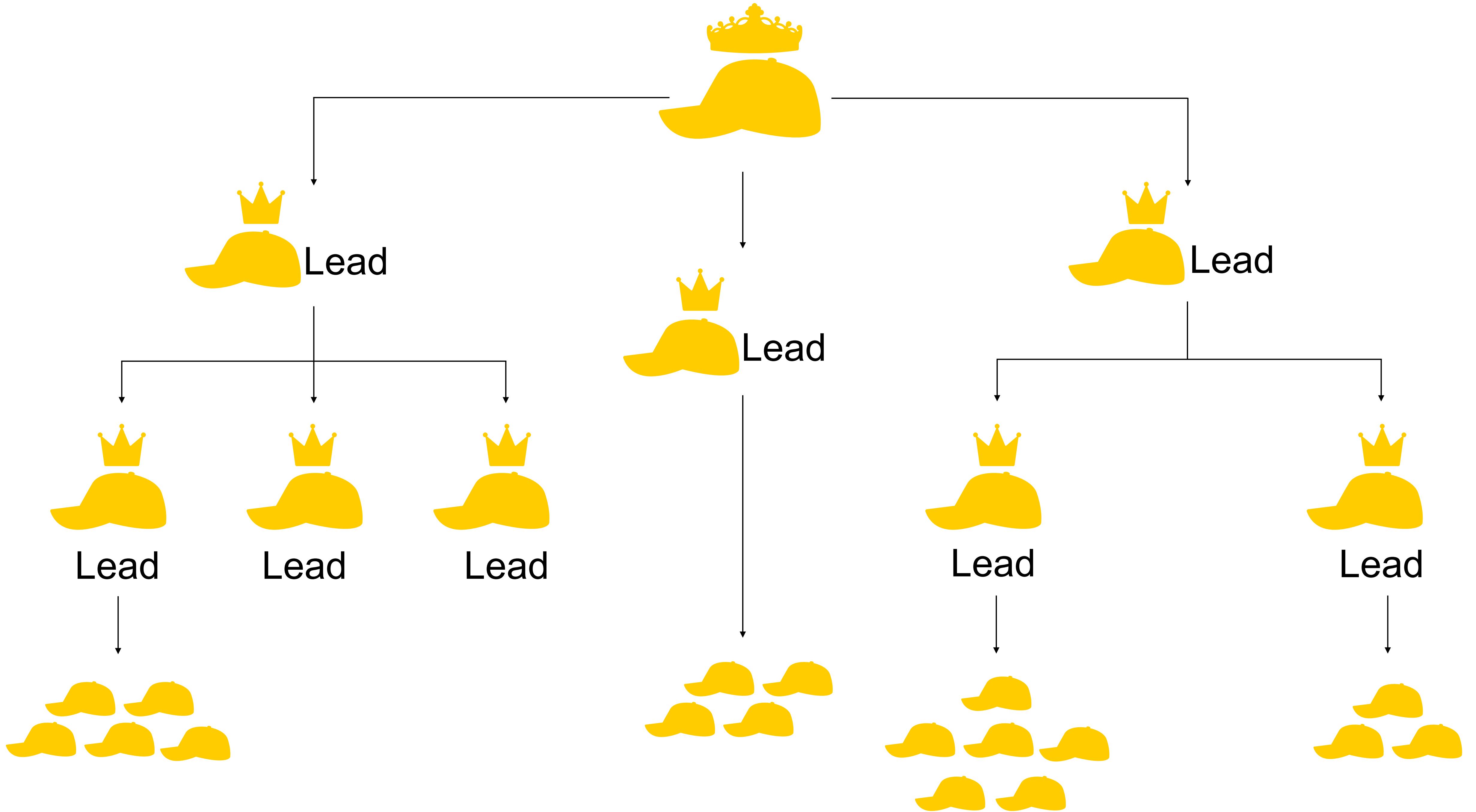
specialization first

developer is the king

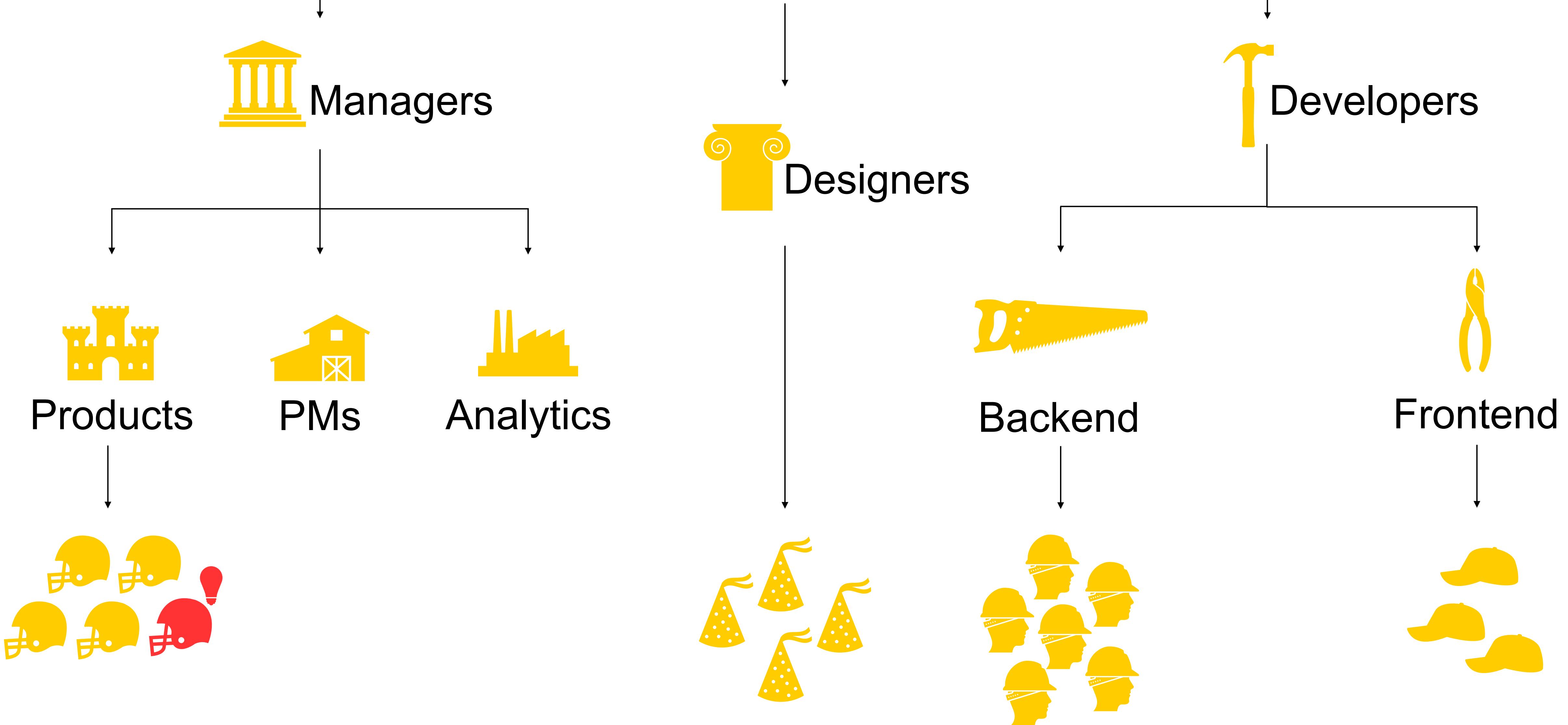
Yandex



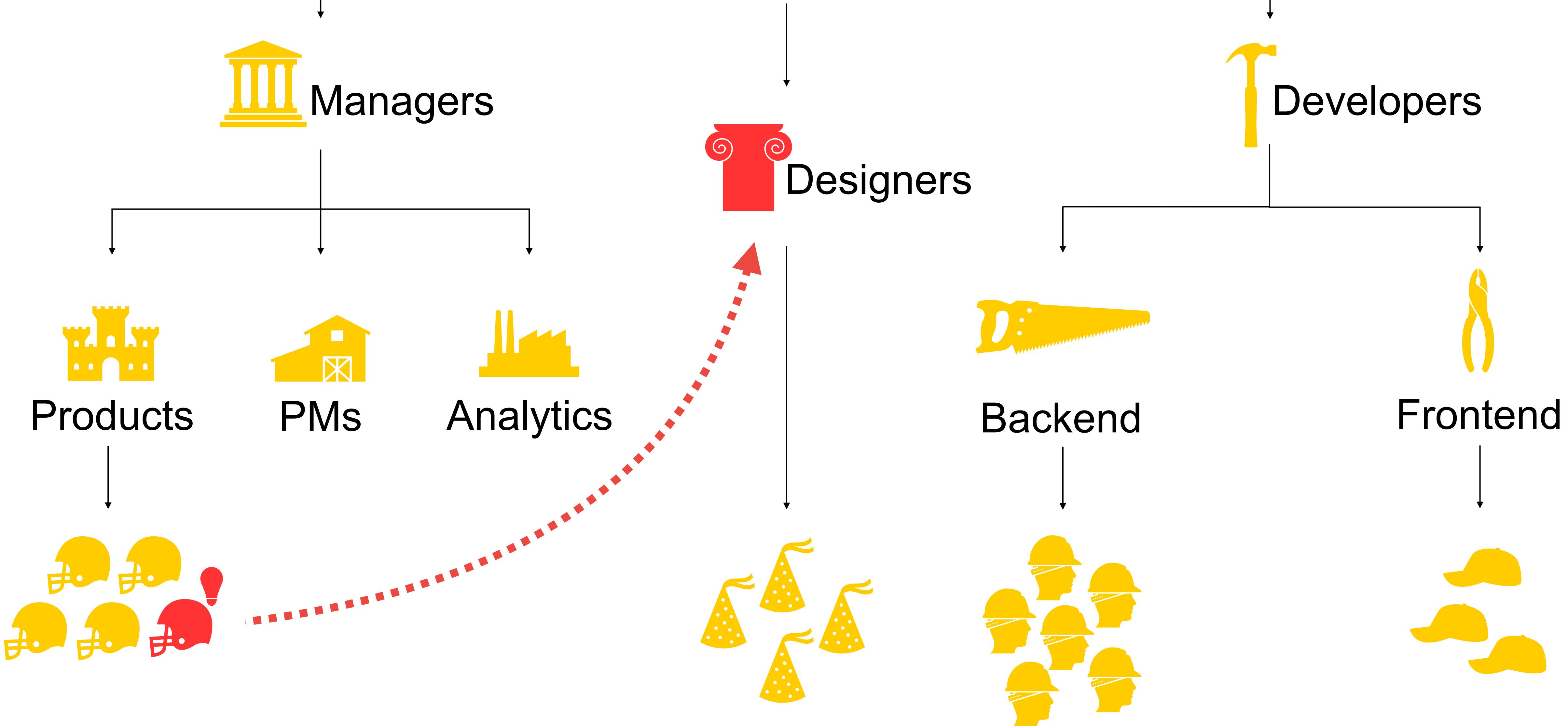




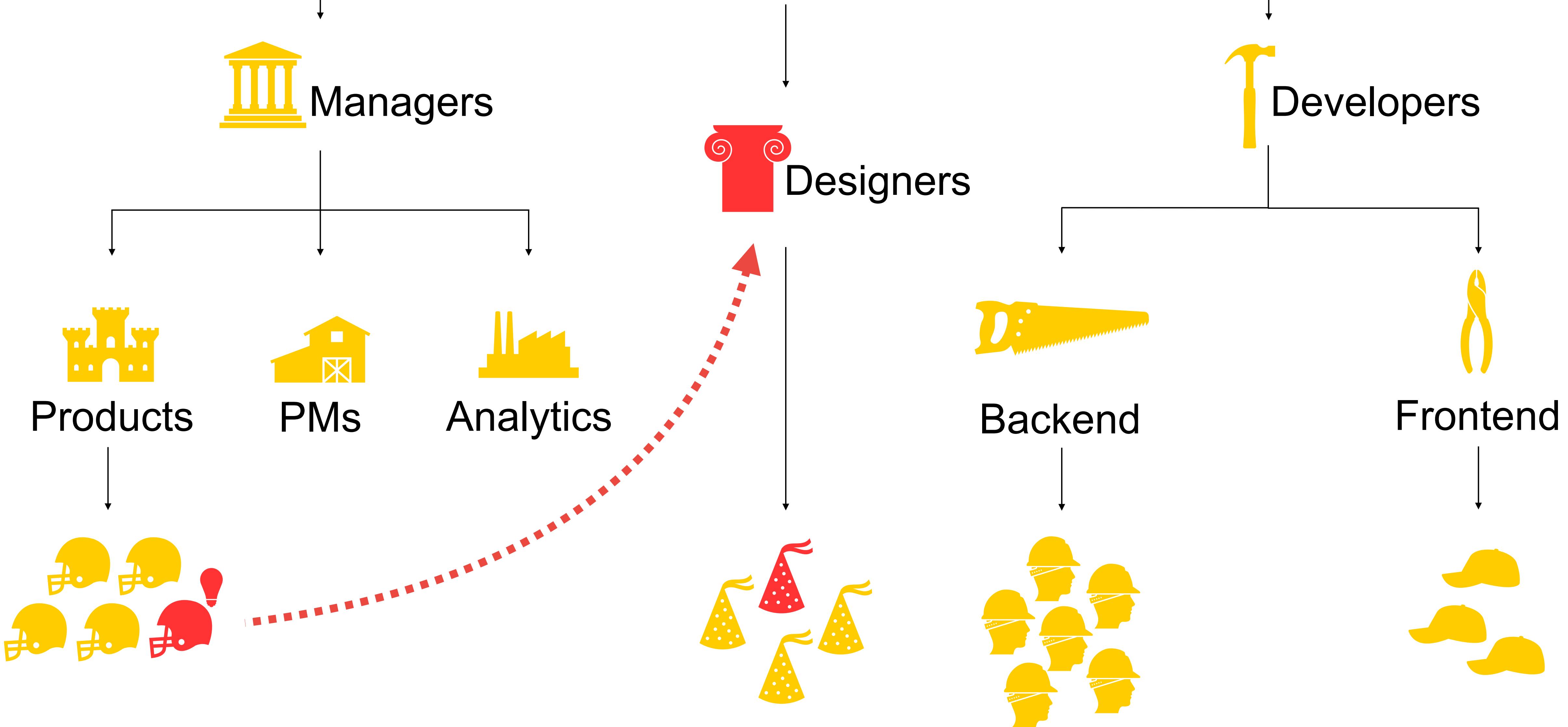
Yandex



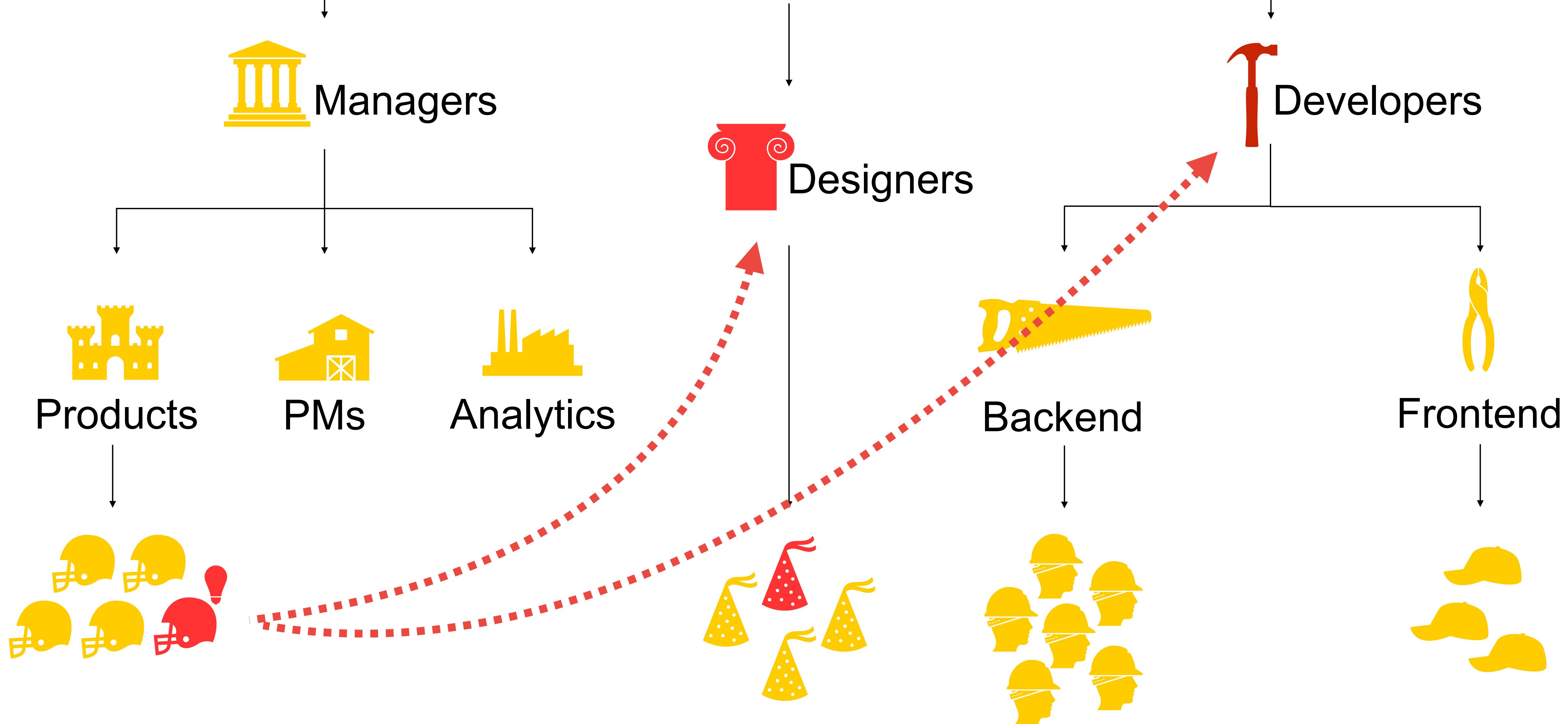
Yandex



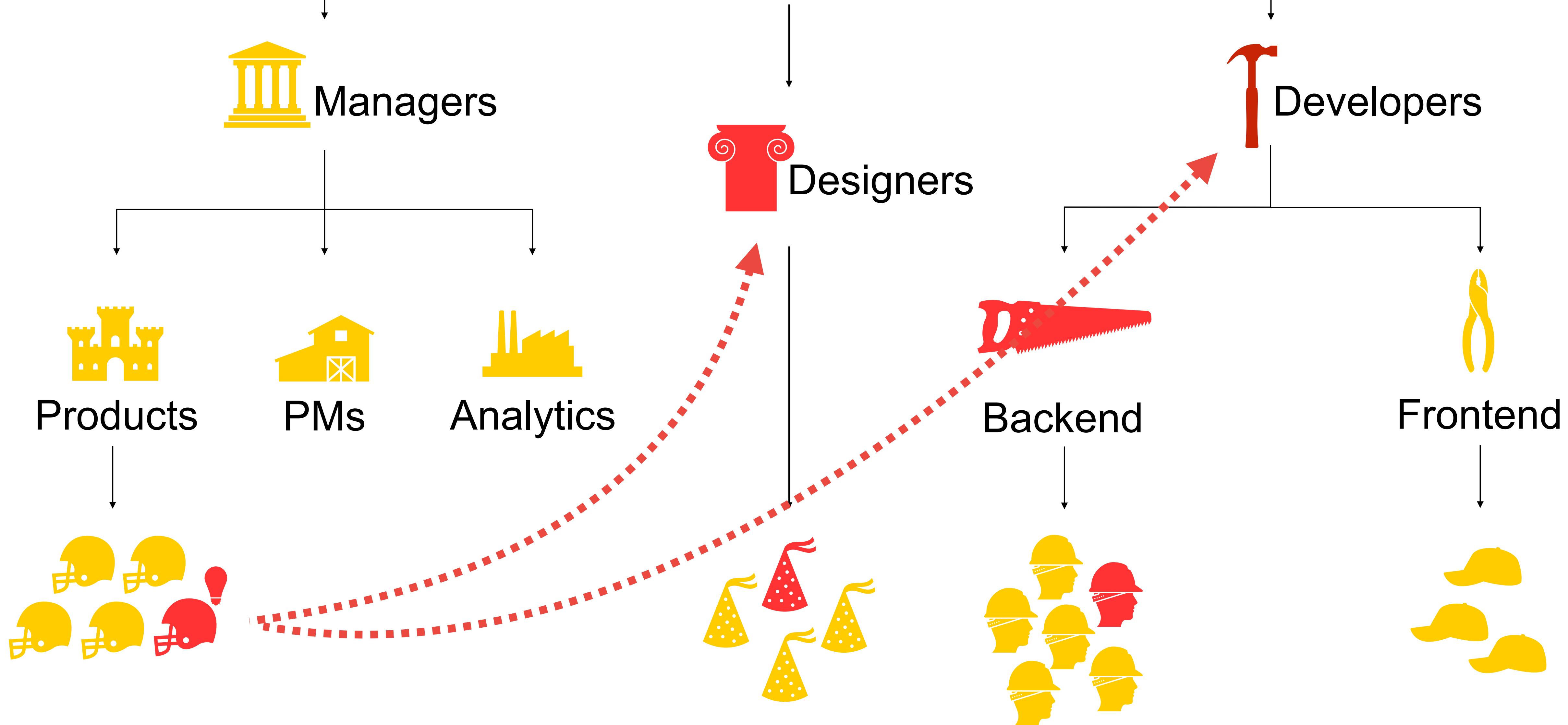
Yandex



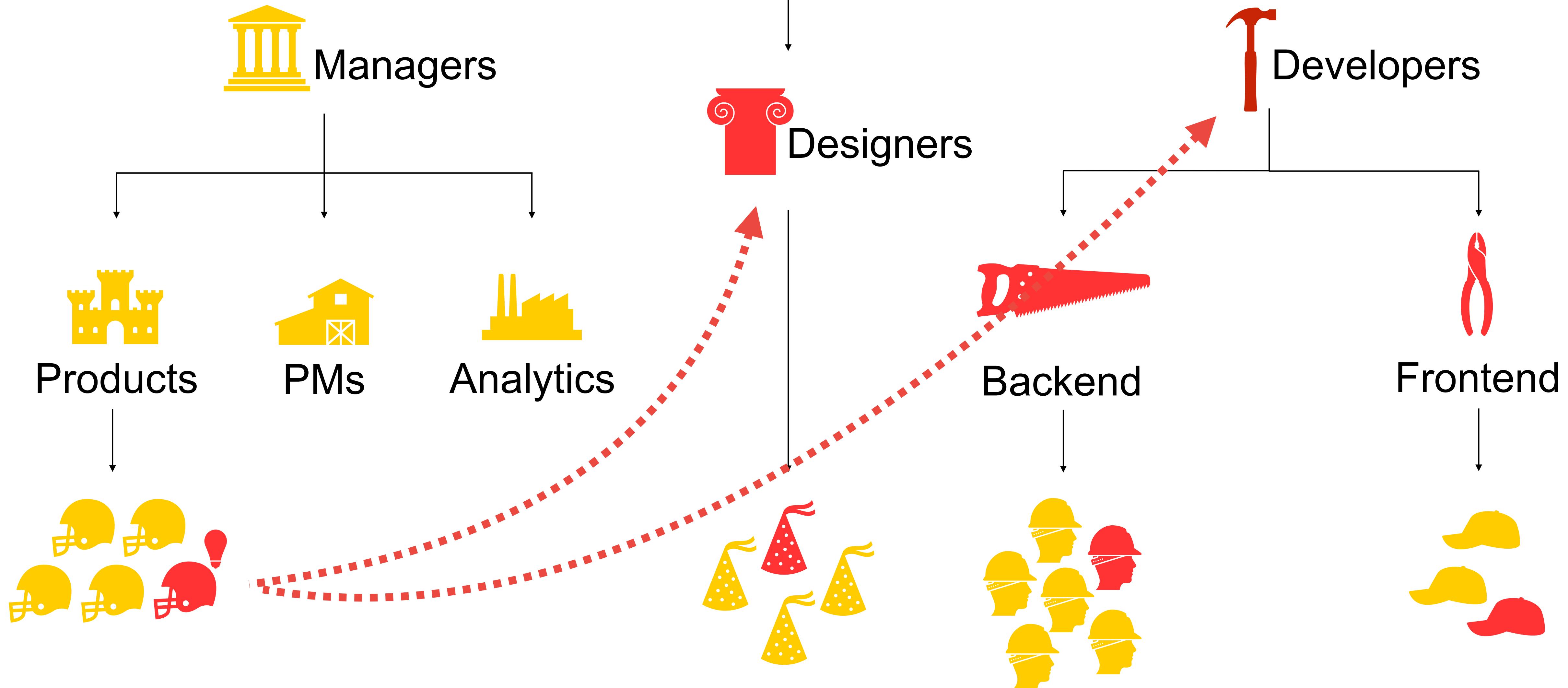
Yandex



Yandex



Yandex



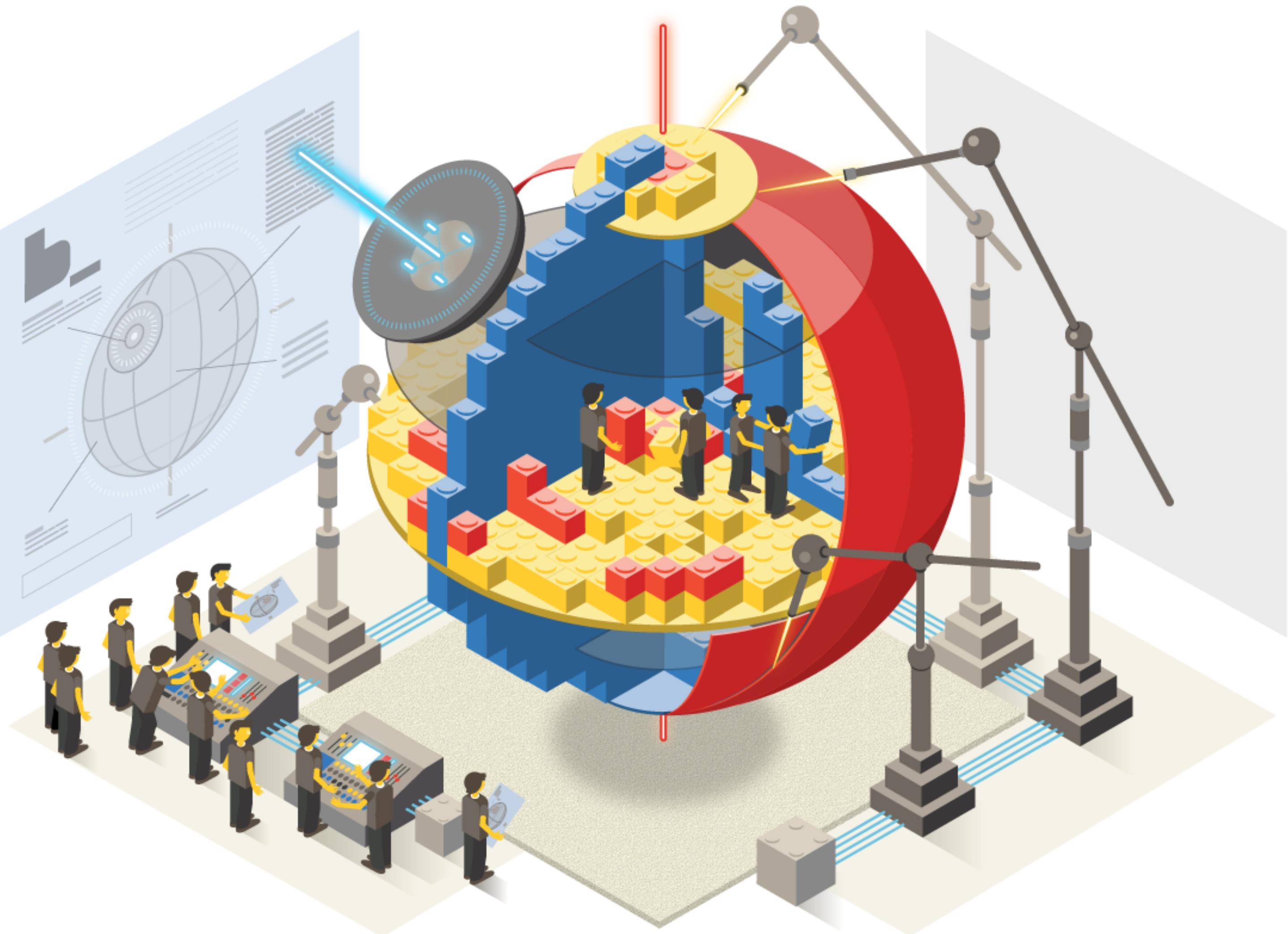
How it works from dev POV

- › Developers are assessed by the heads of developers
- › Tech goals is priority
- › Technological expertise is growing
- › A lot of effort is invested in R&D

Issues

- › Developers are not responsible for the product
- › Products can not force developers to do tasks they don't like





The company grows x2 YoY

Next step

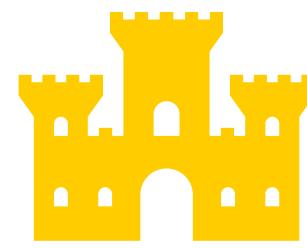
product first

manager is the king

Yandex



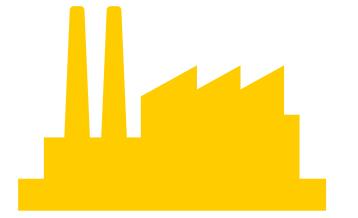
Search



Web



Images



Video



Taxi



Mail



Disk



Issues

- › No code reuse
- › No experience sharing
- › Manager can hardly understand code quality

No balance

- › code is beautiful → releases are rare
- › a lot of attention for processes → less attention to development
- › frequent releases → bad code
- › high tests coverage → hard to change the product
- › care about UI speed → not interested to add more features
- › wanted to improve UI → no time to think about code architecture



The company grows x2 YoY

Common scheme

Agile

SCRUM

- › complete teams
- › everybody is responsible for the result
- › reasonable backlog
- › regular shipping
- › and all these things

Issues

- › changes regularly
- › employee development *history* is lost

Our current solution

consistent staff structure

long term relations between leader and subordinates

Virtual teams

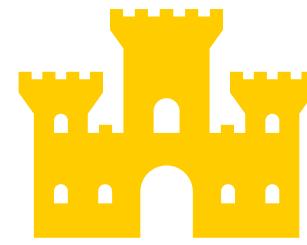
V-teams

- › temporary
- › agile
- › focused

Yandex



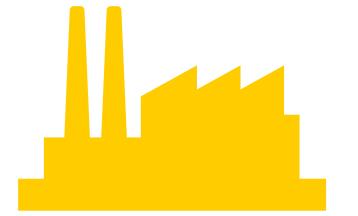
Search



Web



Images



Video



Taxi

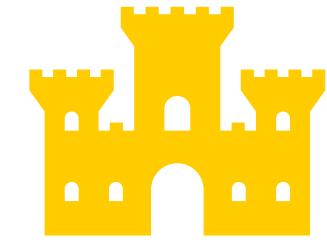


Mail



Disk





Product



care about UI speed



care about new features

responsible for test
coverage



care about code
architecture

responsible cycle time

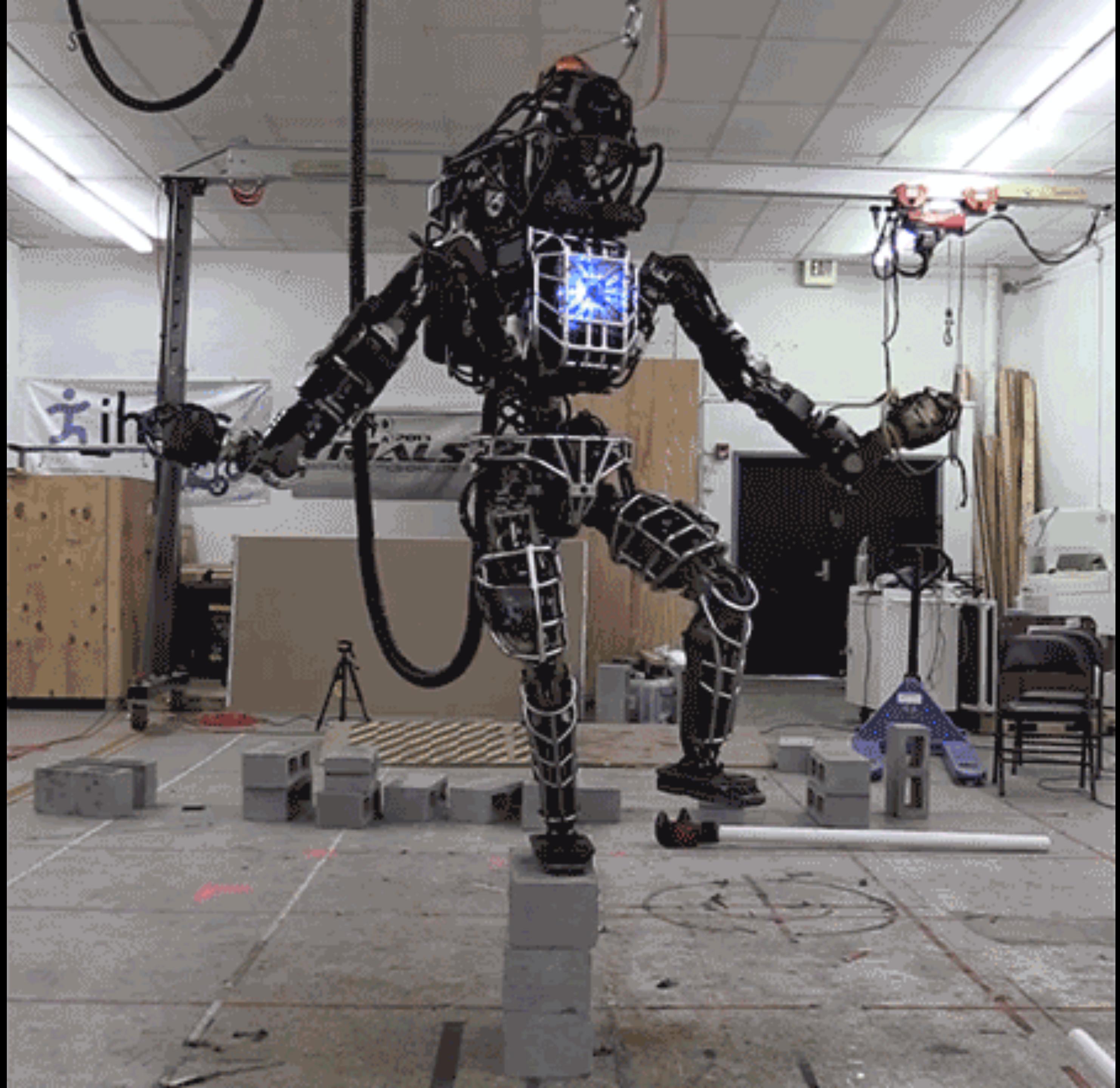
want to improve UI

Roles

- › staff leader
- › v-team leader

Assessment

- › decision in comparison
- › collectively
- › goal system



Additional profits

- › documentation
- › consistency
- › focus but with common responsibility
- › easy to switch people between projects
- › experience sharing
- › growth zones
- › not boring ;)

Some issues

- › Still no one common center for developers
- › How to reuse the code?
 - › — Committees
- › How to choose a team?
 - › — Bootcamp
- › How to interview?
 - › — Universal requirements

Summary

Summary

- › v-teams can balance product aspects
- › help employee growth



Try it yourself





Thanks

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tadatuta



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