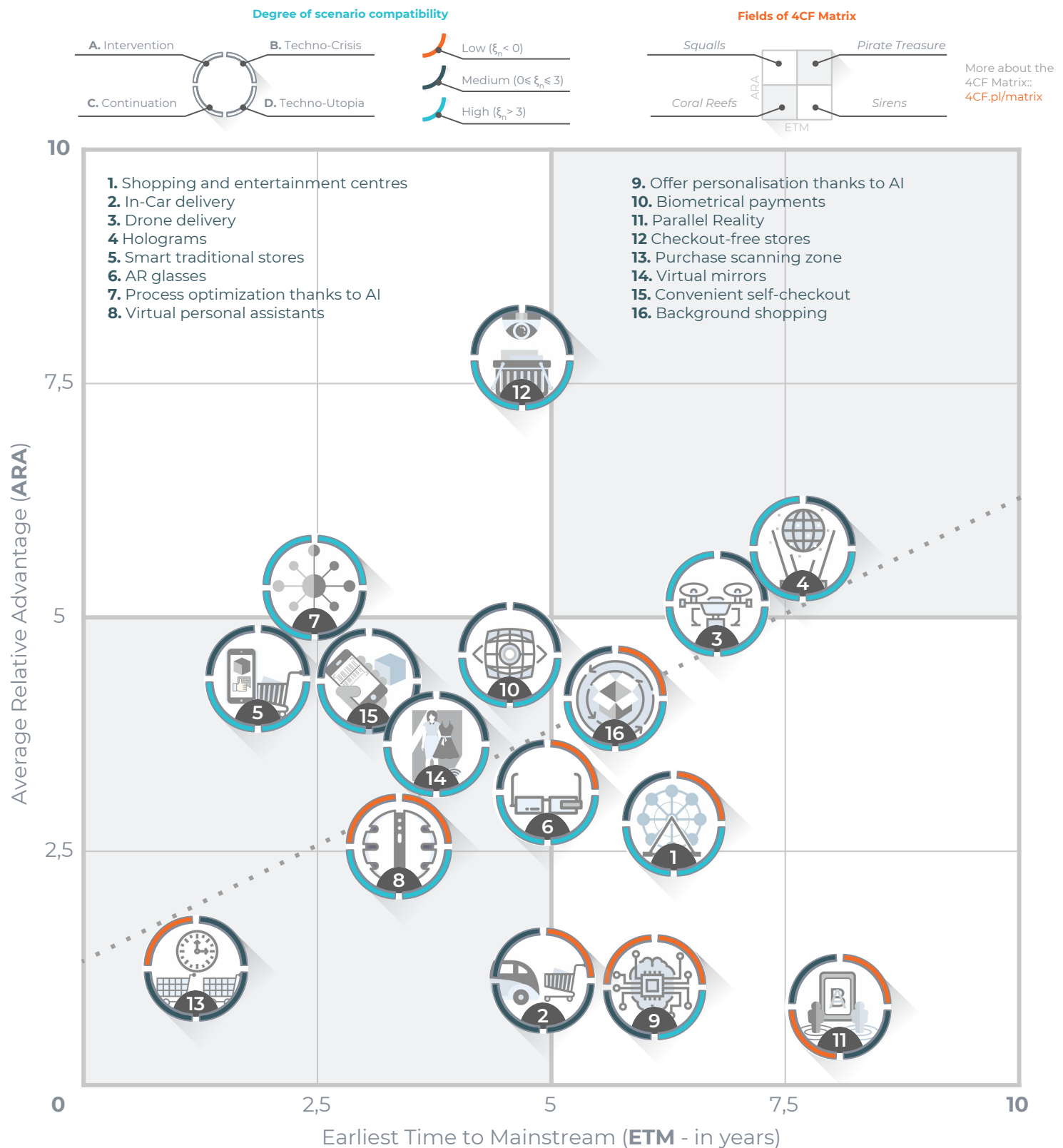# 4CF

Surf the future

the unexpected future:
RETAIL

4CF MATRIX
2018+10

4CF MATRIX: RETAIL 2018+10

The future of retail is not set in stone, it is constantly being shaped by consumers and market players. How to gain a strategic advantage and surprise your market competitors while avoiding getting surprised yourself? The 4CF Matrix is a tool for long-term strategic analyses and has successfully been applied in a broad range of fields (including FMCG, the medical industry, banking or military applications). It is typically used to analyse a specific organisation with regard to its strategic goals, market segments and needs. It helps to establish a development plan based on insights into the future which are unavailable to one's market competitors. The following version is public and general, but contains information which should not be disregarded: we invite you use it as a point of departure for an in-depth analysis from the perspective of your own business.

The 4CF Matrix is defined by two axes: **ARA** - *Average Relative Advantage* and **ETM** - *Earliest Time to Mainstream*. ARA is a complex measure, averaged for future scenarios. It takes into consideration the pros and cons of a specific solution as opposed to alternative options with regard to the expectations of future consumers. ETM is expressed in years (counted form 2018) and signifies the earliest possible time of dissemination. ETM is not a prognosis, but it might be too late to respond to market changes after the deadline it sets.

Degree of scenario compatibility

A. Intervention   **B.** Techno-Crisis
C. Continuation   **D.** Techno-Utopia

Low ($\xi_n < 0$)
Medium ($0 \leq \xi_n \leq 3$)
High ($\xi_n > 3$)

Fields of 4CF Matrix

Squalls   *Pirate Treasure*
Coral Reefs   *Sirens*

ARA
ETM

More about the 4CF Matrix::
4CF.pl/matrix

1. Shopping and entertainment centres
2. In-Car delivery
3. Drone delivery
4. Holograms
5. Smart traditional stores
6. AR glasses
7. Process optimization thanks to AI
8. Virtual personal assistants
9. Offer personalisation thanks to AI
10. Biometrical payments
11. Parallel Reality
12. Checkout-free stores
13. Purchase scanning zone
14. Virtual mirrors
15. Convenient self-checkout
16. Background shopping

Average Relative Advantage (**ARA**)

Earliest Time to Mainstream (**ETM** - in years)

SCENARIOS: RETAIL 2028

When thinking about the future we have a tendency to extrapolate current trends and to assume they will remain unchanged in the coming years. The future, however, is not predetermined and it may follow various paths. In the coming decade, the retail trade market will be influenced by a number of factors, the most important of which have been analysed and grouped into four clusters, thus defining four future scenarios. One of them is a continuation scenario which corresponds to a simple extrapolation of current trends. The other three describe variants of the future, in which one or more of the current trends will change, thus significantly modifying the rules of the game for retailers. Confronting specific solutions with the possible scenarios allows you to determine whether the solutions are resistant to changes in an ambient environment as well as to establish the conditions which would best serve a particular solution.

A. INTERVENTION

The EU introduces new regulations regarding data and privacy protection (GDPR 2.0). By sacrificing full anonymity, consumers gain control of their data on the web. The new regulations require the use of identity verification tools for website users. The entire scope of processed information needs to be reported to an integrated database, which is accessible to individual users for data management purposes. The storage of digital data is a tightly regulated industry.

The intervention scenario assumes that consumers are more aware of what data they share, who they share it with, and what purpose it serves. While shopping, they avoid sharing data with third parties, especially advertisers. They are, however, prone to compromise. The average retail store customer values data security equally with convenience, satisfaction from shopping and good prices.

B. TECHNO-CRISIS

After 2018 companies were eager to introduce solutions based on big data, automatization and machine learning. Unfortunately, the trend was exploited by cyber-criminals, who successfully targeted the fledgling technologies. The problems of technology companies increased uncertainty on the market, finally leading to an economic crisis. Fortunately, it did not cause increased social tensions, but events which led up to the crisis decreased acceptance levels for new technologies.

Techno-Crisis consumers feel nostalgic for traditional solutions in retail. They are distrustful when it comes to the automatization of sales services. Signs and slogans in street protests often mention the protection of jobs against robotization. The average retail store customer is sensitive to prices, but, at the same time, they pay attention to the security of transactions and to confidentiality when it comes to personal data.
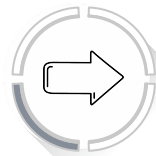
C. CONTINUATION

The continuation scenario assumes that, owing to stable market conditions, the retail sales trends of 2018 developed unhindered.
The degree of technological change has been moderate and the economy has remained stable. The divide between online and offline services has virtually disappeared in retail sales. The market is dominated by large players: chain stores and e-commerce platforms. Smaller stores reach customers through sales integration platforms.

In this scenario, the average customer is motivated primarily by his own comfort and shopping satisfaction, while also paying attention to prices. The segment of clients who regard prices as the primary factor still exists, but it has become significantly smaller. Young and middle-aged customers are eager to use new technologies for purchases, but the elderly (who now constitute a significant percentage of Europe's population) are worried about the safety of such solutions.

D. TECHNO-UTOPIA

The decade has seen the popularization of numerous new technologies which have had a positive effect on everyday life and on the running of businesses. The continuing good economic situation and low unemployment rates have brought high levels of acceptance and support for the ongoing automatization. Changes are also visible in retail, which eagerly implements the wide range of new solutions.

Techno-Utopia consumers are quite affluent and have high levels of trust for service providers. They also, however, require top quality services. For the average retail store customer price levels and the safety of transactions are no longer the key factors. In their purchases, customers mostly pay attention to ease and satisfaction. Shopping should either be unnoticeable, happening in the background, or it should be an enjoyable process.

1. Shopping and entertainment centres

In response to consumer demand for new experiences, shopping centres organise events and thematic zones. Long-term, shops may become an addition rather than the essence of such centres. Provided the tendency is not be affected by a techno-crisis, this new profile of shopping centres may strengthen.
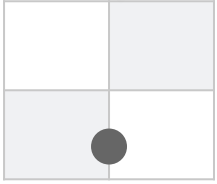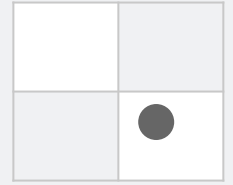
2. In-car delivery

Parcel delivery directly to the boot of a car is being tested by Volvo and GM in cooperation with Amazon, as well as by Audi in cooperation with DHL. GPS, registration numbers and photos are used to locate cars. This service is unlikely to revolutionize retail trade in any of the scenarios.
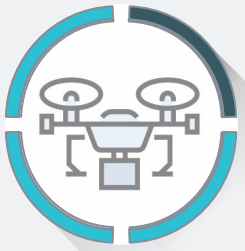
3. Drone delivery

It would be unrealistic to expect a drone delivery directly to your apartment by 2028, but it's possible that drones will deliver parcels to the doorstep of your apartment building. Both flying drones and self-driving robots may be used. The benefits of using drones outweigh threats, even in scenarios which assume low levels of acceptance for new technologies.
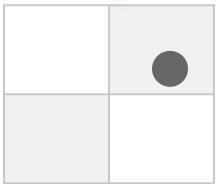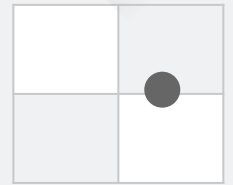
4. Holograms

Realistic images in store windows which simulate the look (or even the touch) of objects, virtual sales assistants, identical to real ones. This solution, though remote in time, may find a number of uses in retail trade and seems a promising path of development.

5. Smart traditional stores

Customers can obtain more information about products from smart screens or their own smart devices (e.g. thanks to NFC tags or beacons). The development of such communication solutions may be subject to legal regulations and may not be accepted by some customers, but these factors should not hinder their development.
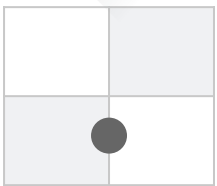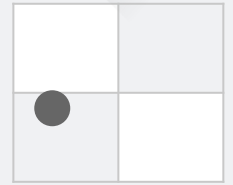
6. AR glasses

Since the rather unsuccessful launch of Google Glass in 2013, a number of AR glasses have appeared on the market. IT giants invest heavily in AR, but can they overcome consumer fears and can the glasses be miniaturized to an extent which would make everyday use popular, also during shopping?
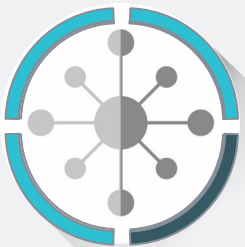
## 7. Process optimization thanks to AI

AI software will significantly facilitate store management (storage, shelf management, shopping peaks) and will point to most promising sources of potential savings. The employment of advanced AI is at our fingertips and does not require consumer acceptance.
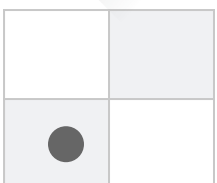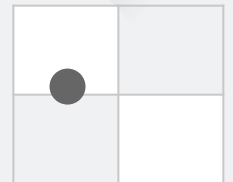
8. Virtual Personal Assistants

Virtual assistants such as Alexa and Google Assistant are already capable of ordering online. Provided their development is not hindered by legal regulations and assuming they will guarantee user safety, thay will soon become versatile shopping consultants. Alexa already offers clothing advice through Echo Look.
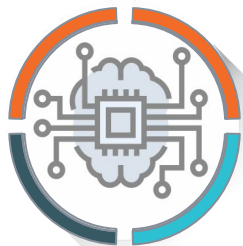
9. Offer personalization thanks to AI

Advanced data analysis and neural networks may contribute to the development of an algorithm which would successfully match the offer and marketing methods to a specific customer. The benefits from this solution might not rise to expectations. Additionally, its implementation may be hindered by regulations and consumer choices stemming from distrust towards microtargeting.
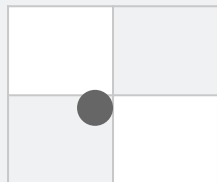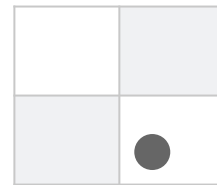
10. Biometrical payments

The use of finger and face scans as a payment verification method is already available on the market. Face recognition is used for payments i.a. in Chinese KFC. Quick payment methods which do not require the use of a wallet or smartphone bring benefits significant enough that such solutions may develop regardless of concerns about the safety of certain technologies.

11. Parallel Reality

The Parallel Reality Pixels technology developed by Misapplied Sciences enables you to see dynamic images, with variation depending on the viewing angle, thus ensuring a fully personalized message. This solution, however, is not likely to become a source of significant advantage in retail trade. Furthermore, it may be completely discarded if concerns about micromarketing gain strength.
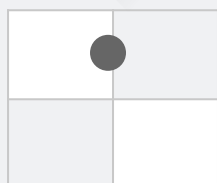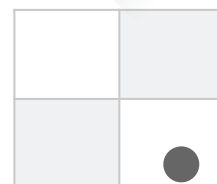
12. Checkout-free store

An AI system for analysing video and sensor data could make checkout counters completely redundant. Payments would be carried out in the background, but in order to shop, customers would need a smartphone app. This solution may revolutionize retail trade provided it is not restrained by concerns about losing anonymity.

13. Purchase scanning zone

The customer leaves a full basket in a scanning zone, where the store's staff prepares the receipt. After a few minutes, the customer receives a smartphone notification that the order is ready to be paid for and collected. The technology is easy to implement and, although it will not revolutionize the market, it is a simple way to get rid of checkout lines.
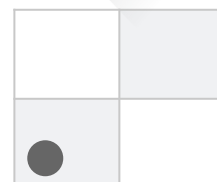
14. Virtual mirrors

Virtual mirrors allow you to test cosmetics and clothes without actually putting them on. They may replace traditional mirrors in stores as well as facilitate online shopping. Smart Mirror has already been introduced i.a. by Sephora. The technology has also been patented by Amazon. This solution seems fairly resistant to changes in the socio-technological environment.

15. Convenient self-checkout

Cash registers may be eliminated thanks to smartphone scanners. Customers take over the role of cashiers and scan products before placing them in the basket. The final step is purchase verification in a designated sensor-zone. This solution is being tested, i.a., by Piotr i Paweł and might be valuable to customers, at least until such a time as more advanced technologies are introduced.
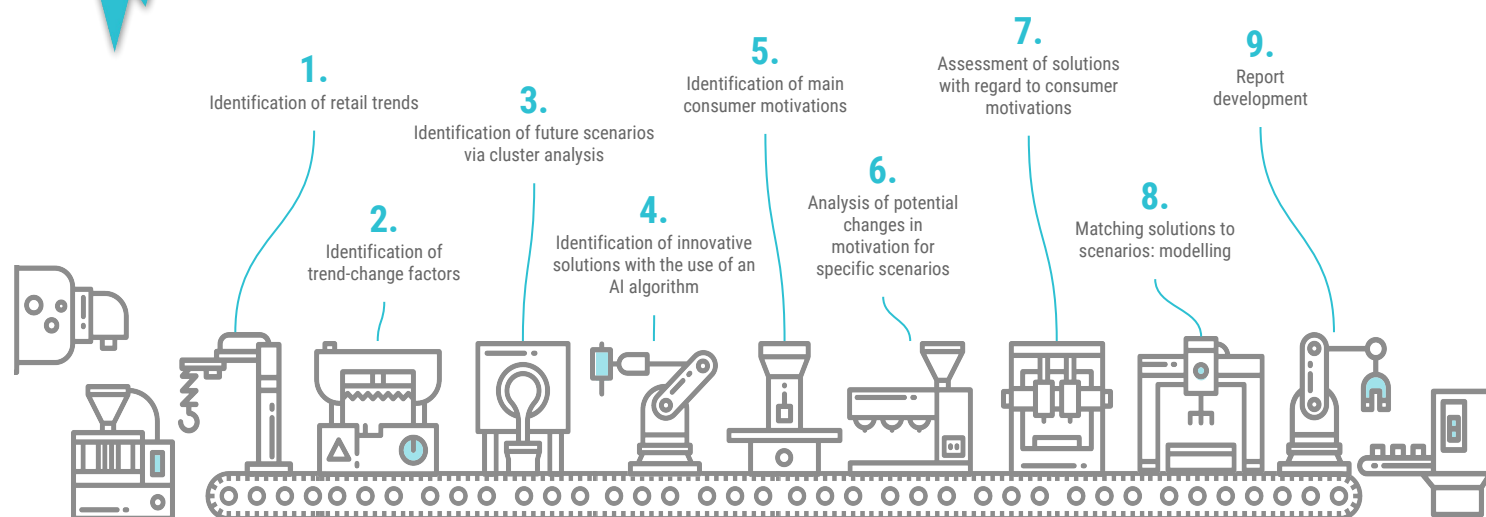
16. Background shopping

Amazon Dash has simplified the process of simple, recurrent shopping. Automatization and IoT may simplify the process even further. The fridge will order yoghurt before you run out, the vacuum will take care of its own bag supply. Home equipment producers, however, are not eager to introduce background shopping solutions.

THE REPORT: MAKING OF

This report is the result of a complex, methodologically advanced analytical process which aims to ensure top quality and to provide a scale for the assessment of potential solutions within the field of retail trade, thus leading to valuable conclusions.

1.
Identification of retail trends

2.
Identification of trend-change factors

3.
Identification of future scenarios via cluster analysis

4.
Identification of innovative solutions with the use of an AI algorithm

5.
Identification of main consumer motivations

6.
Analysis of potential changes in motivation for specific scenarios

7.
Assessment of solutions with regard to consumer motivations

8.
Matching solutions to scenarios: modelling

9.
Report development

WHAT'S NEXT?

Were you surprised by any parts of the report? Do you disagree with any of its aspects? What is your opinion of the scenarios: which bring promise and which might be dangerous? Are there some solutions you would rather see fail or some that you might try to win the market with?

Rapid market changes make it harder to develop a future-safe strategy. The conclusions this report proposes will help you identify areas of particular interest for your organisation. However, to surprise your competitors on markets of the future and avoid being surprised by market developments, you might need a more in-depth analysis, which would consider a wider range of solutions, your strategic goals, market segments, your capabilities and needs. Such an analysis, along with the constant monitoring of the environment in search of early warning signs, is the key to *surfing the future,* in other words: shaping desired future scenarios and using the changes to achieve your long-term development goals. You should remember that many organisations, including your competitors, already use analyses similar to this one. Those analyses, however, are confidential, considerably more elaborate and are being used with a future strategic advantage in mind.

4CF

Surf the future

4CF is a strategic foresight consultancy with global reach. We have been helping our clients reach the best strategic decisions for over a decade by making sure they stay a step ahead of competition. We help our clients to safely surf the wave of change but also to use market changes to their own advantage more successfully than their competitors.

Providing insights into the future which help you reach strategic decisions is a task we take very seriously. Our advanced research methodology, which places us in the global forefront of business foresight, is constantly being enhanced. That is why not only corporate clients (Asseco, First Data, Skanska, BGŻ BNP Paribas, Deloitte or Kongsberg) but also international organisations and government institutions have trusted our services.

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