İŞKUR
TÜRKİYE İŞ KURUMU

TürkTraktör VR Trainings

Virtual World of Technical Training

simge
SİMGE SİMÜLASYON

IIS VITTORIO EMANUELE II
NAPOLI

FUNDACJA SZKOLNA TZN

Koç | CNH INDUSTRIAL

Emerging of the idea

With the lights of the increasing focus on **Industry 4.0** practices among **TürkTraktör and Koç Group, integration of advanced training technologies** to employee improvement process has been made by HR directors.

Detecting the problem and emerge of necessity

Traditional on-the-job training method has been analyzed at the field with the helps of **Hacettepe University**.

It is realized that on-the-job trainings across the production environment have been negatively affected by some stimulus such as **noise, activities, heat, light**.
When the **human based errors data** taken from production process has been analyzed, some errors became chronical in **the complex operations** even though they have been trained.

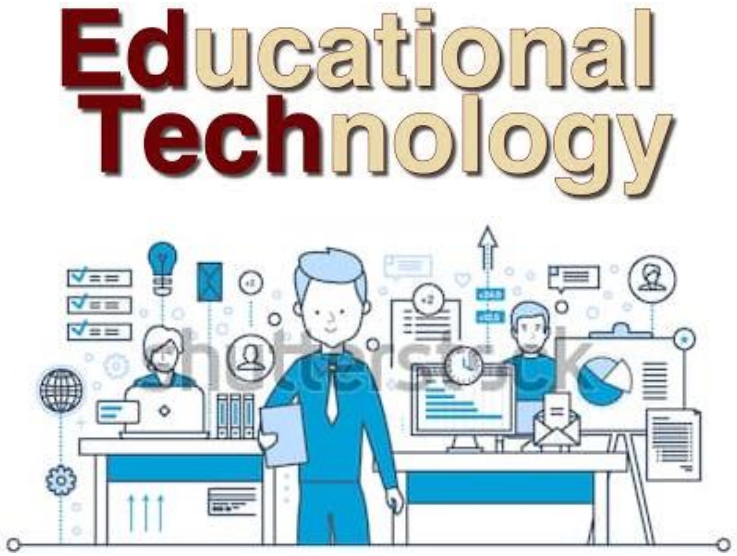
Traditional on-the-job Method

- Occupational accident risks
- Cost of training waste
- Quality issues
- Difficulty of concentration
- Audition problems

Detecting the problem and emerge of necessity

It has been detected that some methodological trainings like **HSE, Environment WCM** are not sufficient due to their theoretical construct.

In this context, a consensus decision-making has been made regarding developing **a new training method** which satisfies **the qualifications and expectations of the target market.**



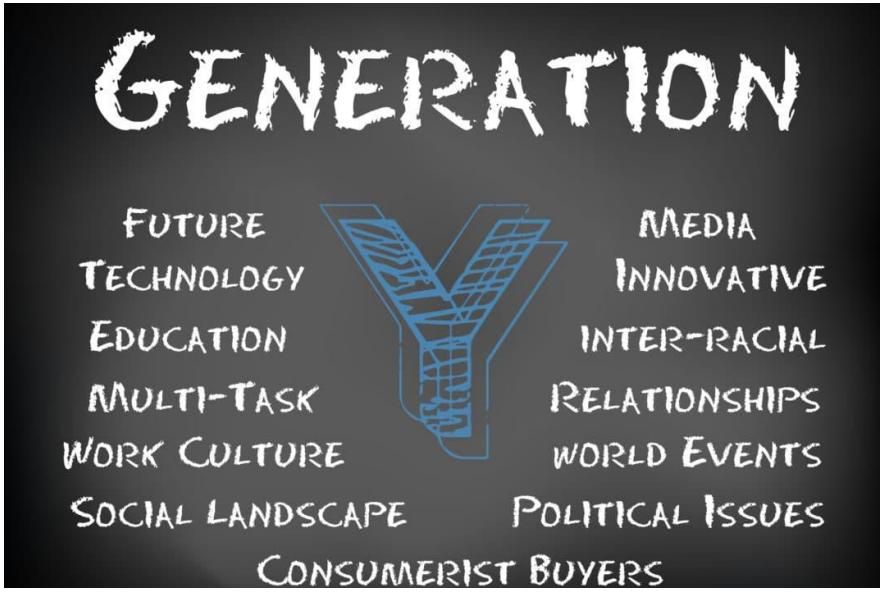
Deciding the target market

A detailed research regarding **target market's qualifications** and **expectations** has been made**.**

Some additional research regarding the characteristics and interests of generation Y which presents **84% of our employees**, has been made.

Meetings have been set up with universities to discuss generation Y's **learning styles.**
The most apparent feature of generation Y,also called as **internet generation,** is the admiration of technology.

Besides, more data about **learning style of deaf people** has been gathered.



Deciding the new training method

The literature research intended for training methods and technologies has been done, **benchmark** visits have been made in **the university and the sector.**

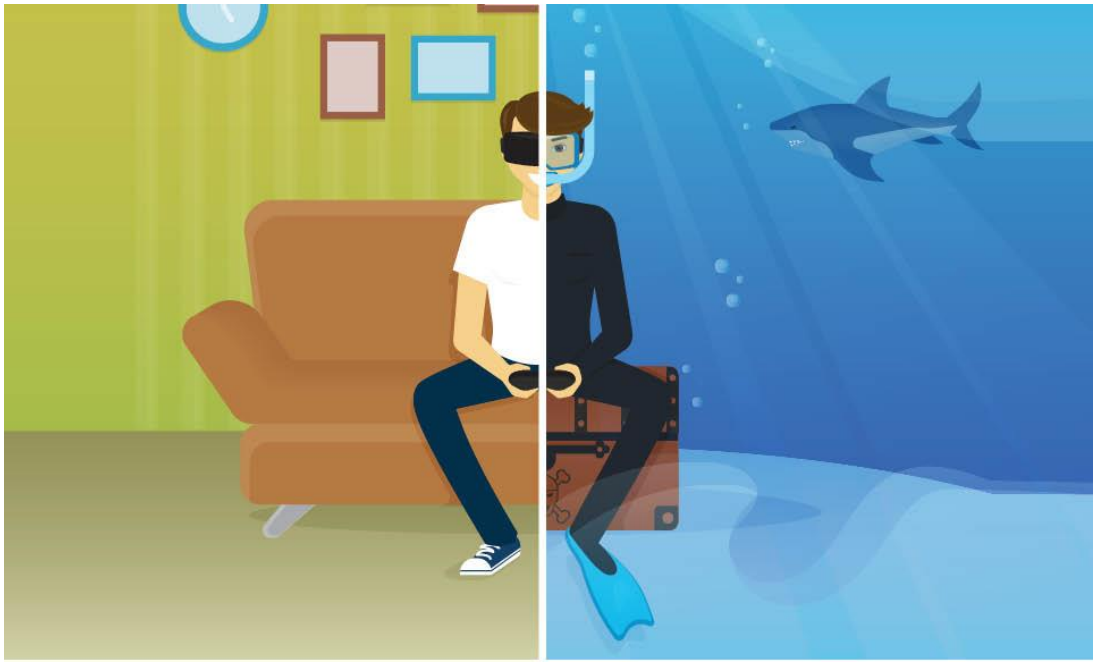
After all these practices, it has been decided that we need to choose a new training focused effective method that would be able to attract our employees with its technology.

With the lights of our evaluations done via **Hacettepe University,** this new method has specified as **Virtual Reality Tech.**

Technical training method supported with VR

What is VR?

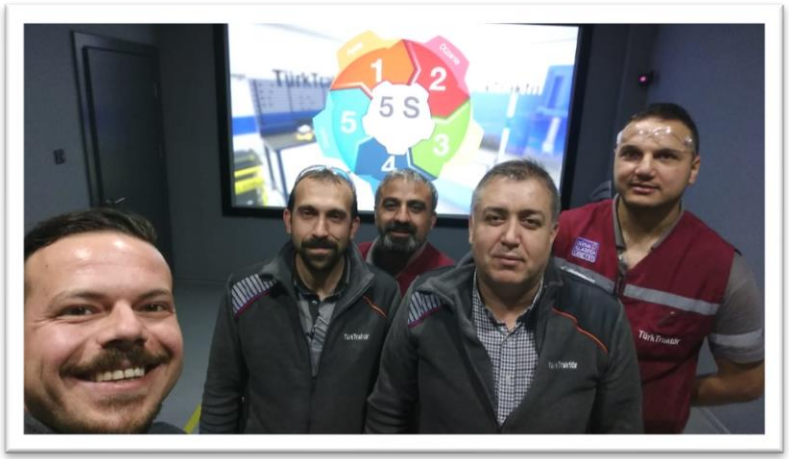
It is the use of computer technology to create a simulated environment. Unlike traditional user interfaces, VR places the user inside an experience. Instead of viewing a screen in front of them, users are immersed and able to interact with 3D worlds



Content of trainings

Operation trainings

360 Degree Plant Trip and Company Presentation



Methodological Trainings (5S, HSE, Logistics , Environment, machining)

VR Trainings designed for deaf people

Who do we train?

- Employees
- Interns
- Service employee
- Franchisee
- Farmer
- *Supplier

Grants we received

This is the first EU project about VR Training **in automotive sector** that has been approved

Total Grant from EU: 167.000 €

First time in Turkey,
TürkTraktör has received the Turkish employment agency's 'Handicapped people employment project' grant.

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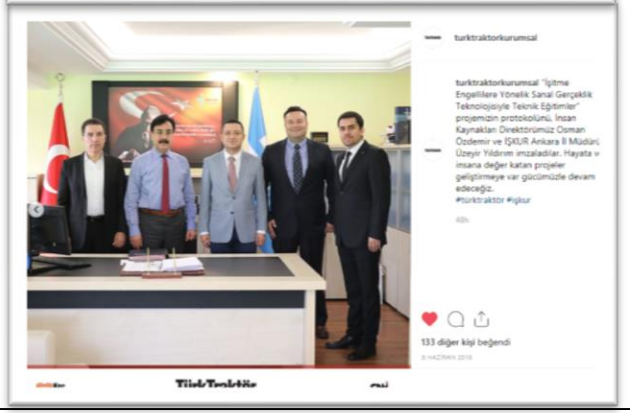
Total Grant from Turkish employment agency : 162.000 ₺



Turkish employment agency's 'Handicapped people employment project' contribution

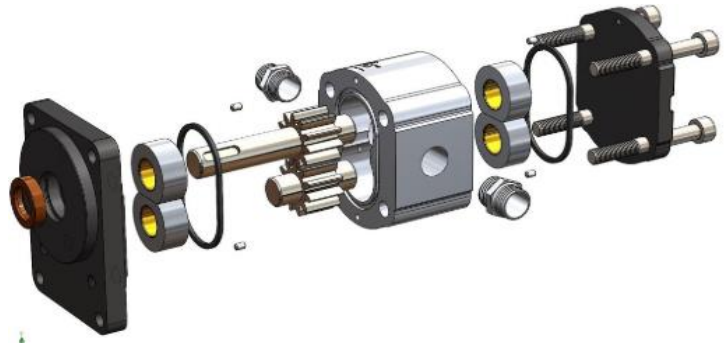
First time in the automotive sector,

- Technical terminology in sign language research has been done, technical signs have been identified.
- A research regarding deaf employees' technical training has been done.

Europion Union Project

First time in the automotive sector,

- In technical training field, a study in ‘Technological Development’ status has been done.



Academic research results

First time in Academic field,
A large scale experimental study about VR has been done.

(all employees working in the directorship of warehouses and internal logistics participated in the experimental study called ‘Impacts of VR to training’, an article written regarding it.)

53% more efficient according to the experiemental data

89% of human error has been decreased

VR backed up technical training method

- Low possibility of occupational risk
- opportunity to apply multiple times
- Ergonomic training environment
- Interesting technological infrastructure

European Union Project- Dissemination studies

1) Koç Holding - İyi Uygulama Günleri (İstanbul)
2) Koç Holding - Topluluk Şirketleri Paylaşım Toplantısı (İstanbul)
3) Otomotiv Sanayii Derneği (OSD) - Eğitim Zirvesi (İstanbul)
4) Başkent Üniversitesi - 2. Uluslararası Uzaktan Öğrenme ve Yenilikçi Eğitim Teknolojileri Konferansı (Ankara)
5) UNDP - Model Fabrika Açılış Töreni (Ankara)
6) i3D in VET Proje Tanıtım Konferansı (Ankara)
7) Hacettepe Üniversitesi - Tanıtım Günleri (Ankara)
8) CNH - Biçerdöver Fabrikası (Plock/Polonya)
9) Innovaway Spa. (Napoli/İtalya)
10) Napoli Sanayi Odası (Napoli/İtalya)
11) Ankara Sanayi Odası – Meclis Toplantısı (Ankara)
12) Gazi Üniversitesi – Teknoloji Fakültesi (Ankara)
13)Gazi Üniversitesi – Teknik Bilimler Meslek Yüksekokulu (Ankara)
14) Festo Kft. (Budapeşte/Macaristan)
15) MESS - i3D in VET Proje Çıktıları Paylaşım ve Yaygınlaştırma Toplantısı (İstanbul)
16) TUSAŞ - "Endüstriyel Uygulamalarda VR ve AR Kullanımı" Konferansı (Ankara)
17) German Agency for International Cooperation (GIZ) – Sanal Gerçeklik Aracılığıyla Kariyer Rehberliği Çalıştayı (Ankara)

European Union project- Benchmarking demands we have met

1) Fiat Chrysler Automobiles (FCA) - İtalya
2) CNH Industrial - İtalya
3) CNH Industrial - Çin
4) CNH Industrial - Hindistan
5) Magneti Martelli
6) Ford Otosan
7) Tofaş
8) MAN
9) Mercedes-Benz
10) Honda
11) Karsan
12) Toyota
13) Renault
14) European Training Foundation (ETF)
15) European Bank for Reconstruction and Development (EBRD)
16) United Nations Development Programme (UNDP)
17) Türkiye İşveren Sendikaları Konfederasyonu (TİSK)
18) Türkiye Metal Sanayicileri Sendikası (MESS)
19) Otomotiv Sanayii Derneği (OSD)
20) Arçelik
21) Doğan Holding - Ditaş
22) Borusan Holding - Borçelik
23) Türkiye Ulusal Ajansı
24) İşitme Engelliler Eğitim Faaliyetleri Derneği
25) Celal Bayar Üniversitesi
26) Orta Doğu Teknik Üniversitesi
27) TUSAŞ Akademi
28) Coşkunöz Holding – Çoskunöz Eğitim Vakfı
29) Milli Eğitim Bakanlığı
30) TÜPRAŞ Akademi
31) Ostim Teknik Üniversitesi
32) TÜBİTAK – SAGE

Our project has been selected Good Practice

i3DinVET project has been selected "Good Practice" by the European Union

https://ec.europa.eu/programmes/erasmus-plus/projects/eplus-project-details/#project/2017-1-TR01-KA202-046646

Thank You!