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27/02/2020 – Présentation “LDIH Talks”

Présentation Propriété intellectuelle CFL IT
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ABOUT CFL GROUP

HISTORY

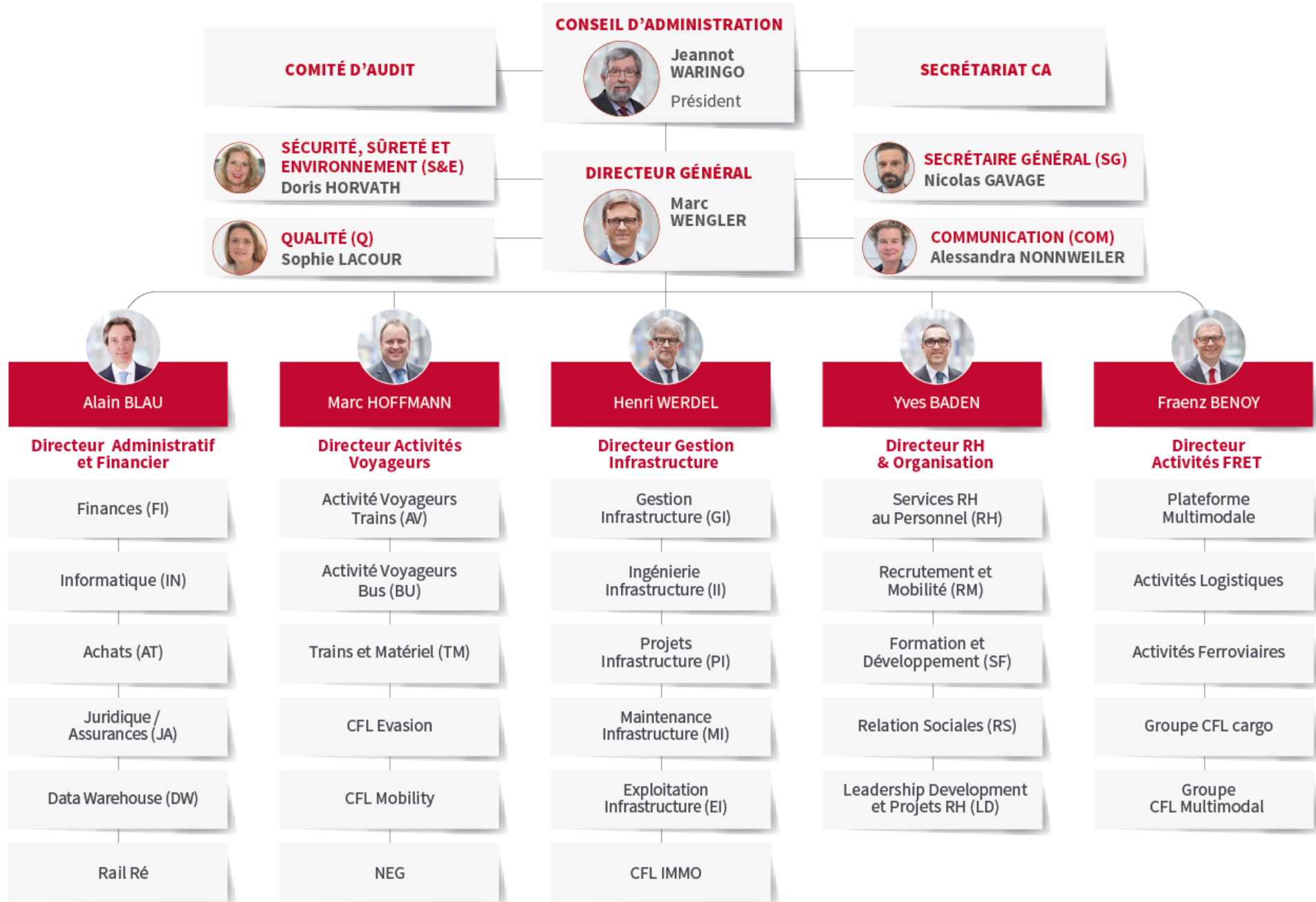
- Passenger transport in Luxembourg since 1859
- Company under Luxembourg law, founded on April 17th, 1946
- Current shareholders:
 - Luxembourg 94%
 - Belgium 4%
 - France 2%

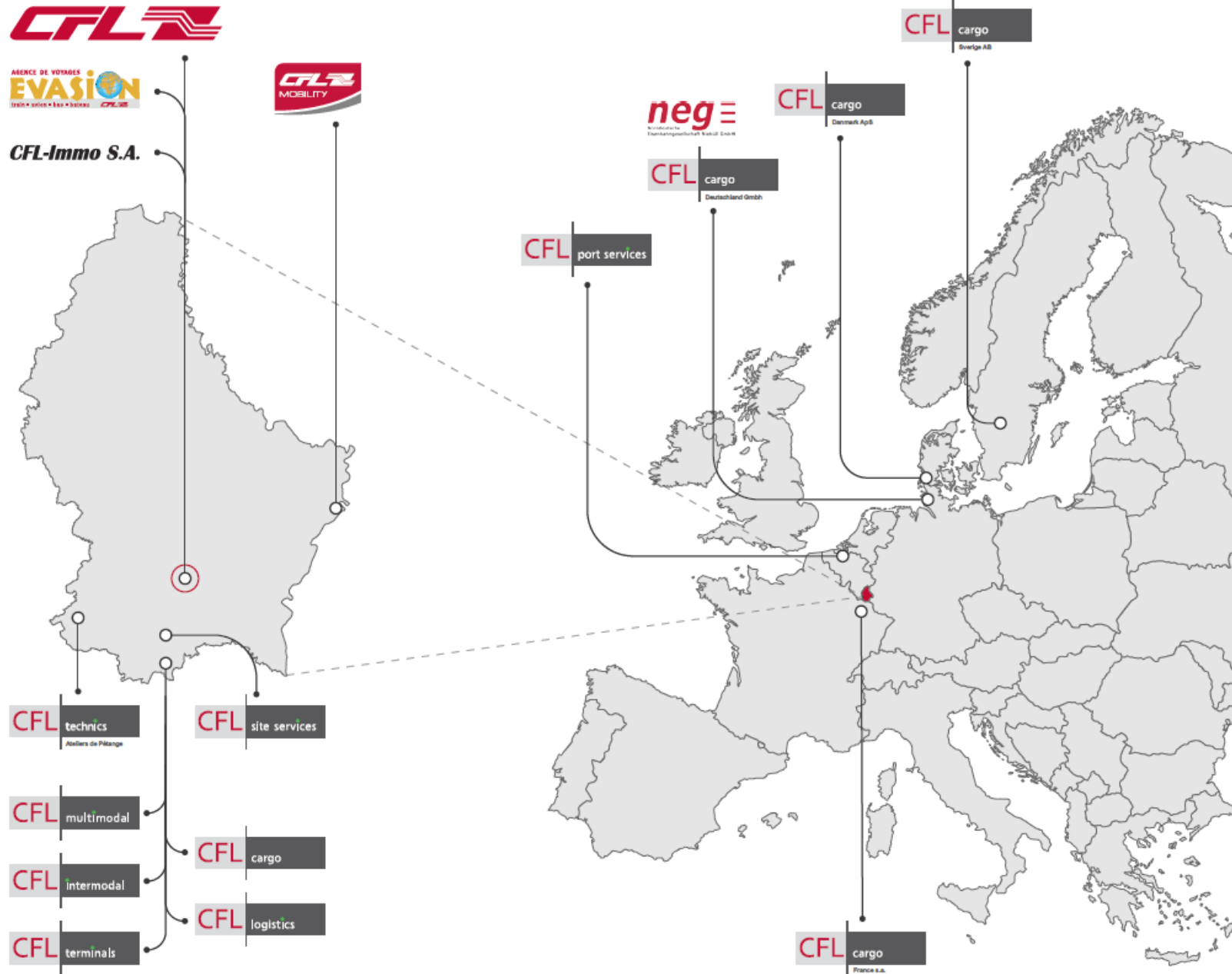


3 MAIN ACTIVITIES

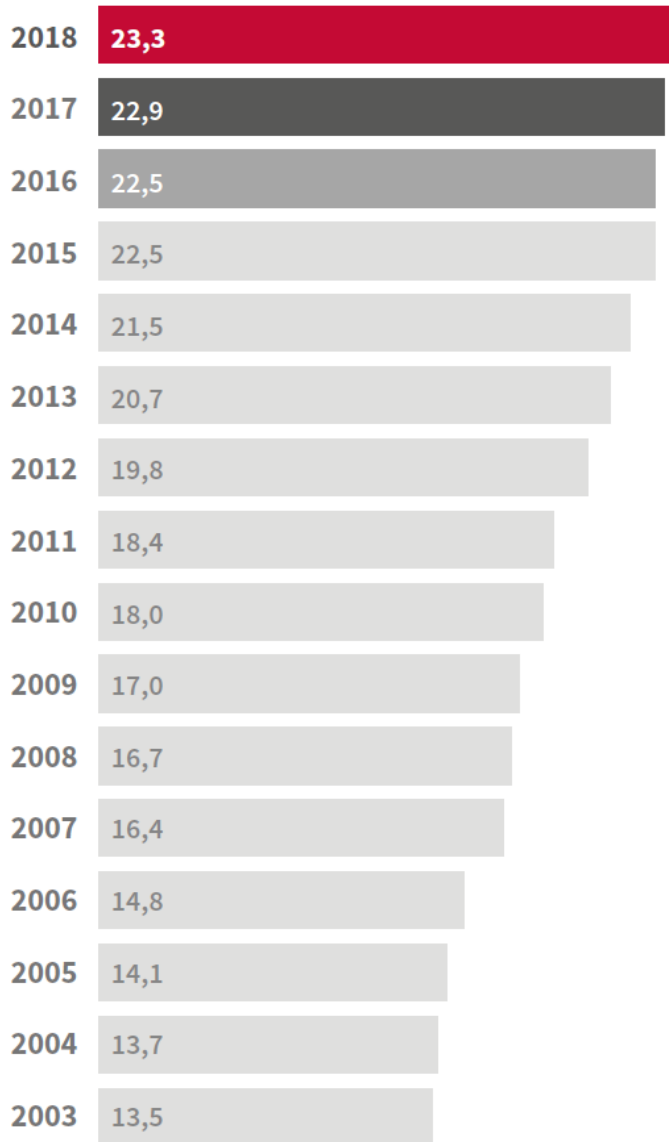
- Passenger transport by rail and by road, in the Grand Duchy and beyond, for the years 2009 to 2024
 - Backbone of the national public transport
- Management of rail infrastructure in Luxembourg
 - Management of traffic on the rail network, extension, modernisation, renewal and maintenance of these infrastructures
- Freight transport
 - Multimodal logistic services
 - Large range of value-added products







NUMBER OF TRAIN TRAVELERS (IN MILLIONS)



23.3
MILLION
TRAVELLERS

2.517 MILLION
TON-KILOMETRES
OF GOODS TRANSPORTED

A FLEET OF
68 BUSES

89,0%
PUNCTUALITY OF TRAINS
ON THE CFL NETWORK

100% ETCS
EUROPEAN TRAIN
CONTROL SYSTEM
(NETWORK AND
PASSENGER TRAINS)

4.622 EMPLOYEES
INCLUDING FOREIGN SUBSIDIARIES

251.552
SEATS PER WORKING DAY

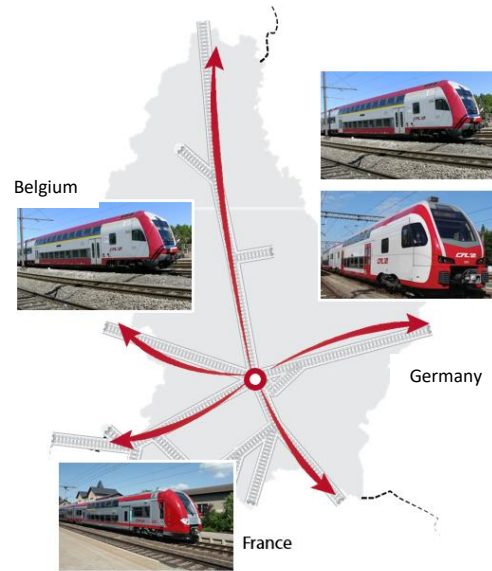
34 NEW
ELECTRIC
RAILCARS
ORDERED

ROLLING STOCK

MODERNISATION AND EXTENSION OF THE ROLLING STOCK

INVESTMENT

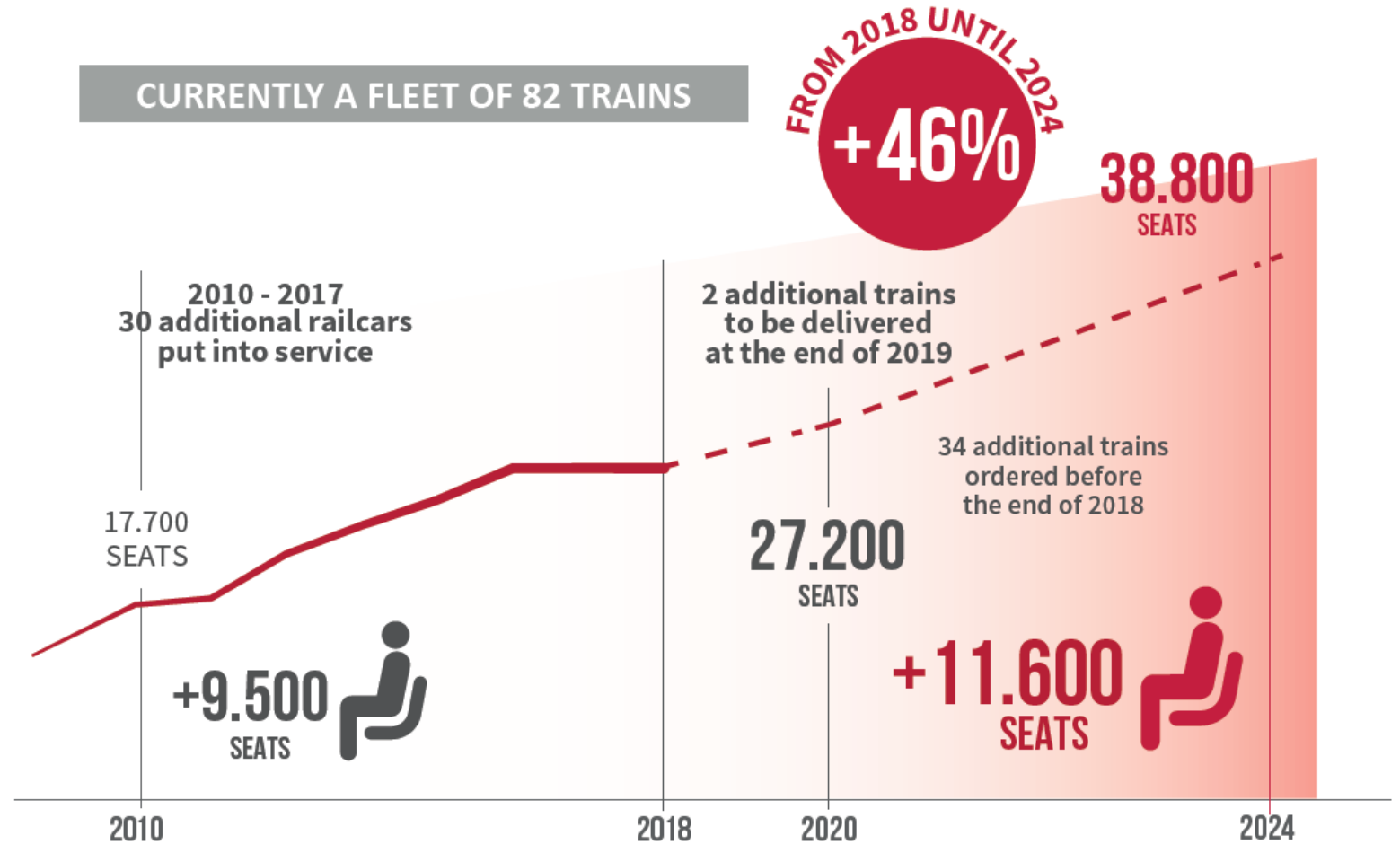
400 MIO. €



IMPLEMENTATION

12/2021 - 12/2024

CURRENTLY A FLEET OF 82 TRAINS





Future Ettelbruck train station (2022) and P+R (2023)



Future Rodange train station (2023) and P+R (2021)



Future Howald train station and multimodal hub (2024)



Future line Luxembourg – Bettembourg (2024-2028)



Viaduct Pulvermühle (2019)



LOGISTICS



TRAINS



PLATFORM



SEMI-TRAILERS



PÉTANGE
WORKSHOP



WAREHOUSE





110 highly skilled "geeks"

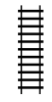
Perimeter

 2800 workstations

 600 applications

 2 Datacenters

 Countrywide Lan



Infrastructure Manager



Passenger Transport



Freight



Other Activities



Transverse activities

Core Activities



IT Infrastructure



IT Security



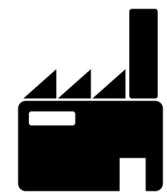
Applications



Cloud Services



Digital Workplace



Operational Technology

CFL

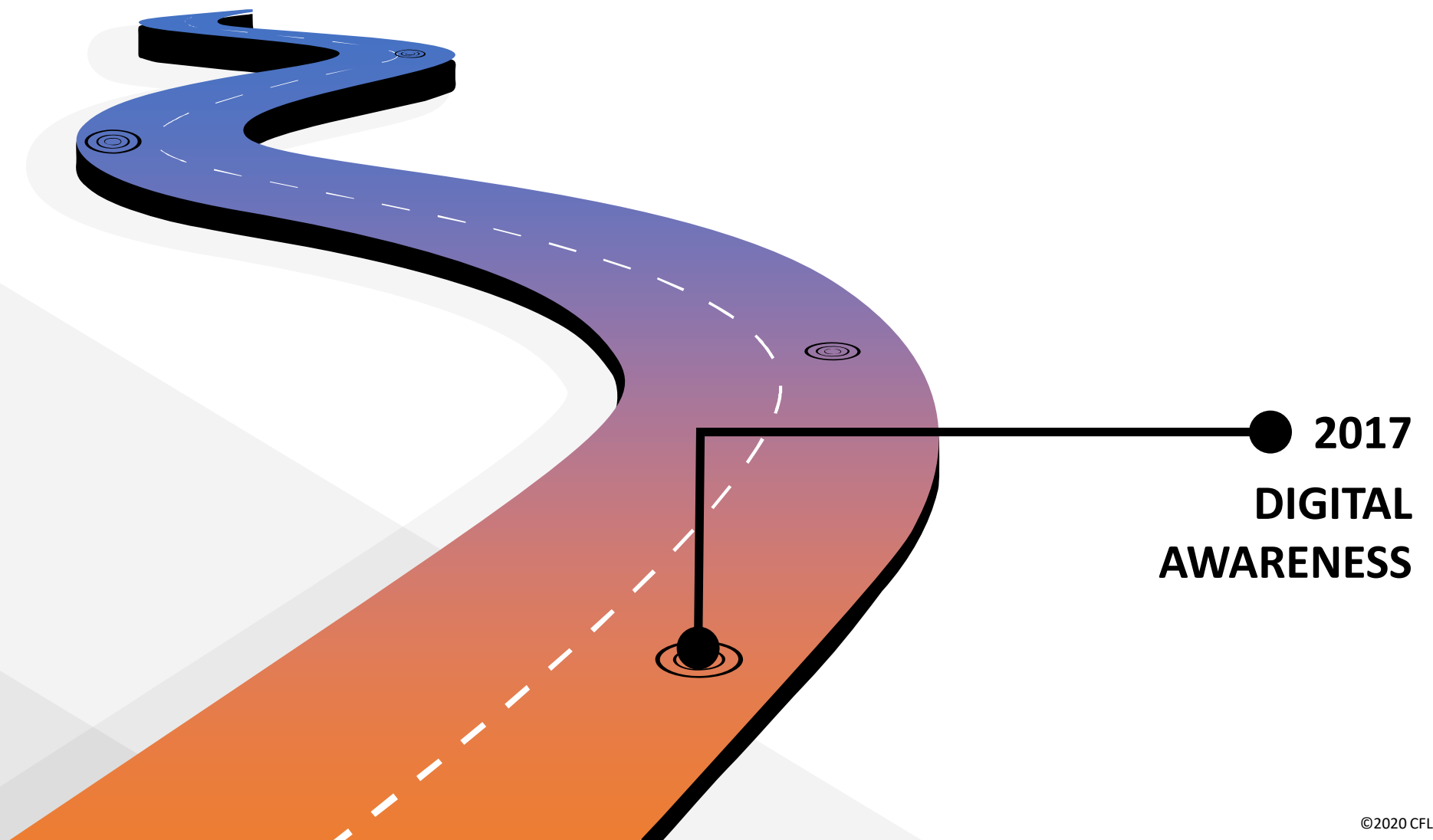
Some Facts

IT

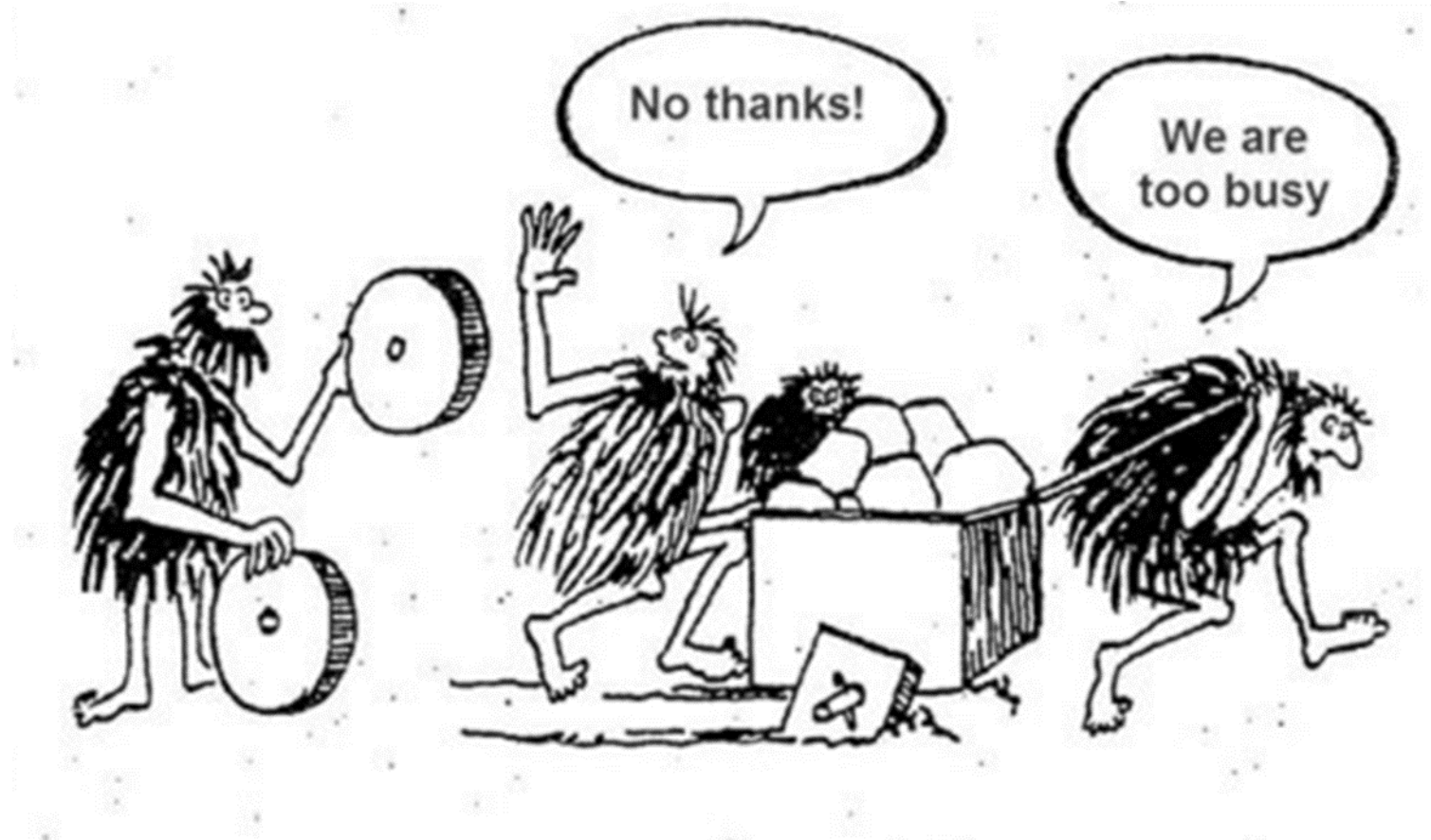
OUR DIGITAL JOURNEY

Our Digital Journey until now ...

**Digital
RAIL
Roadmap**



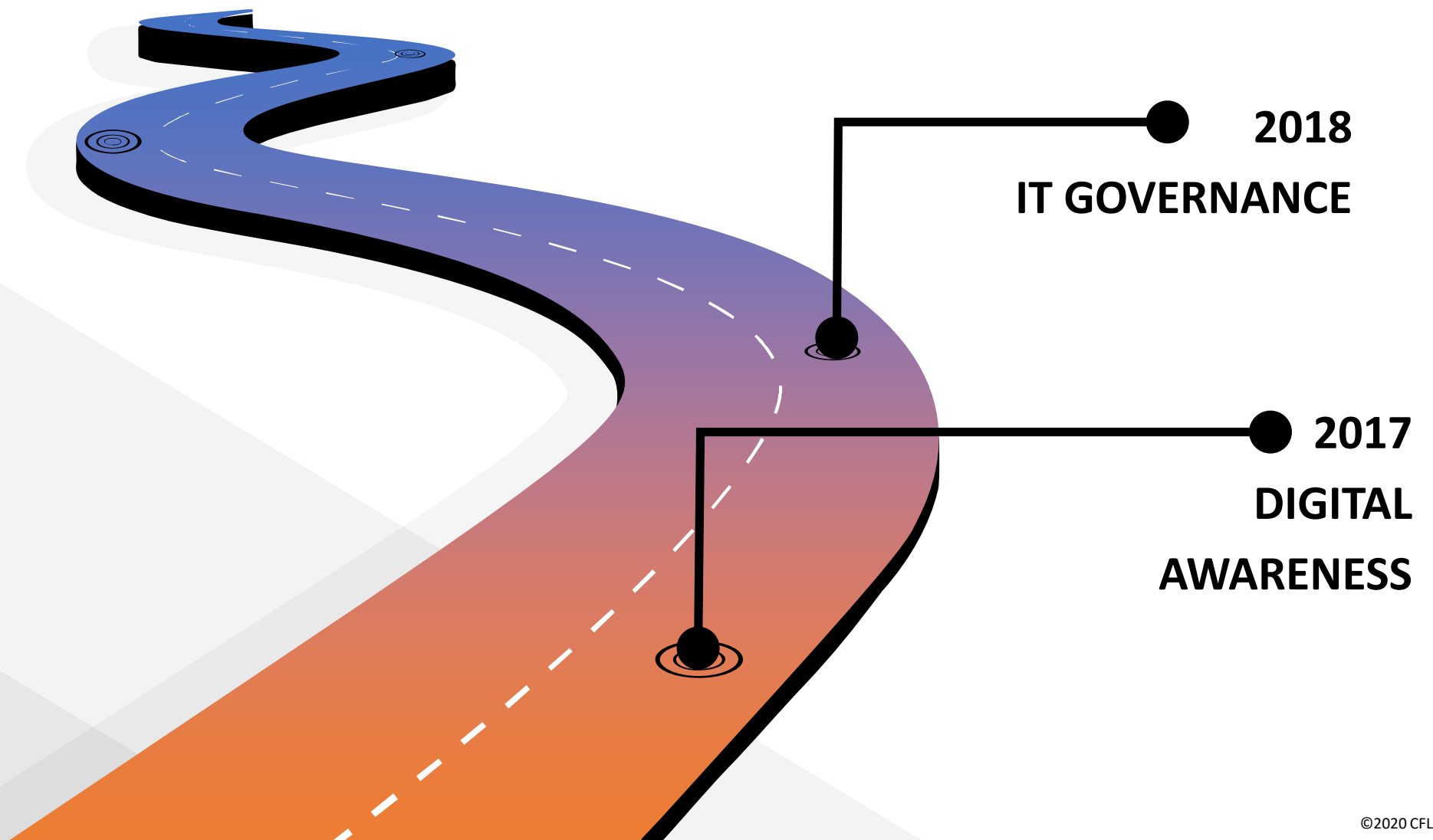
Why transform ?

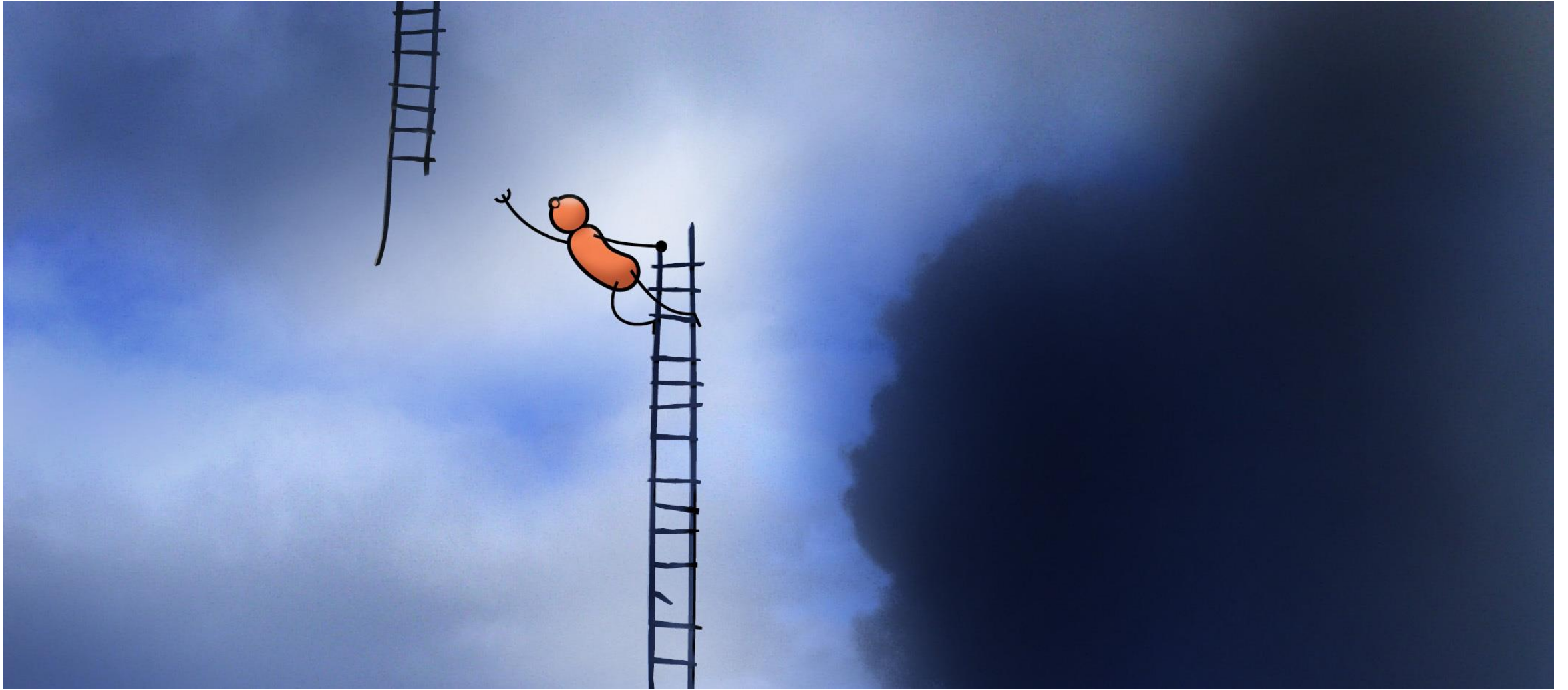


Source Inconnu : Internet

Our Digital Journey until now ...

Digital
RAIL
Roadmap



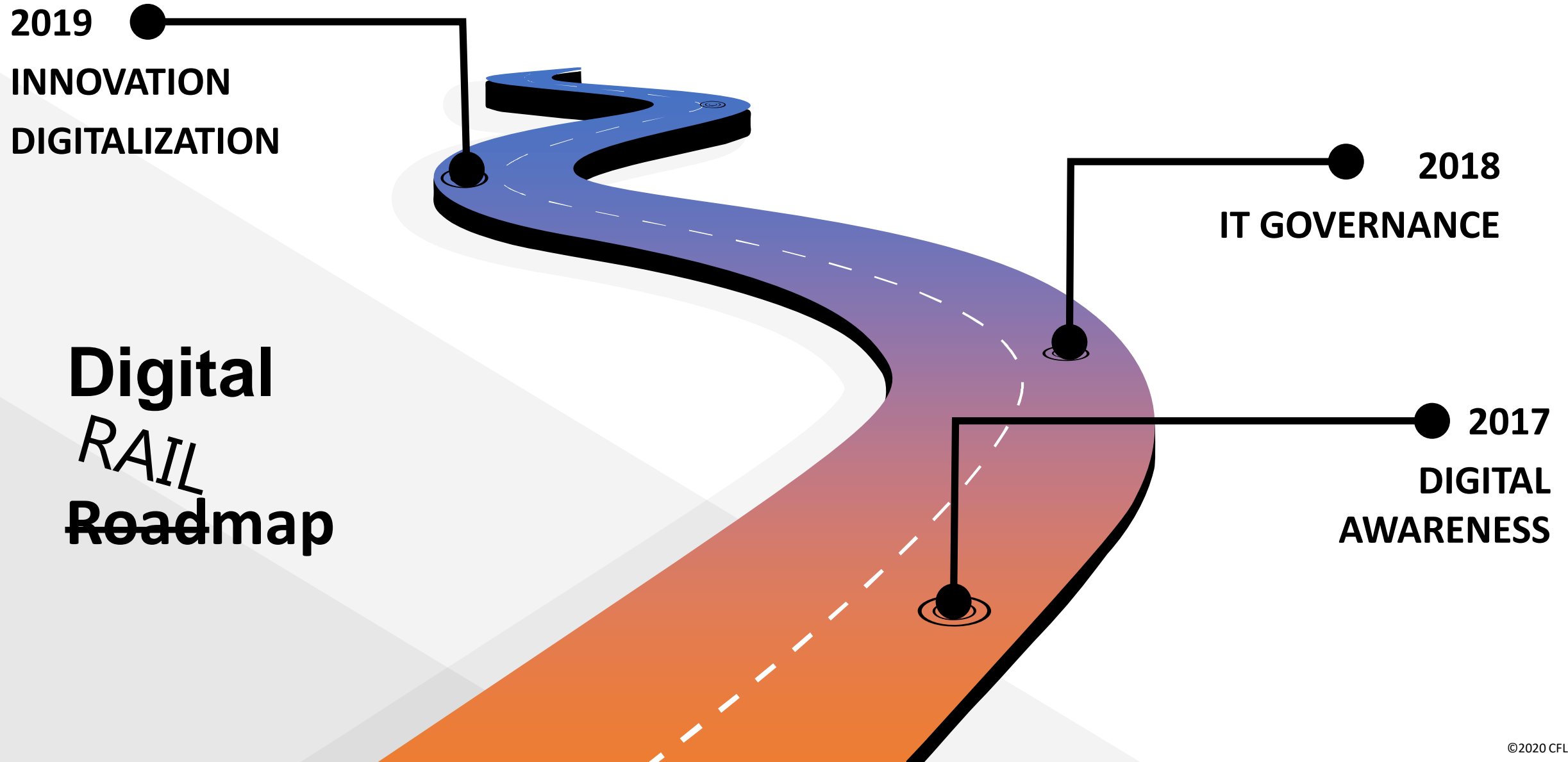


Source Inconnu : Internet

“IT TAKES CHANGE TO MAKE CHANGE”

Silicon Valley Quote

Our Digital Journey until now ...







NEXT DIGITAL
INNOVATION
LAB

CONSTRUISONS ENSEMBLE
NOTRE FUTUR DIGITAL !



Our Digital Journey until now ...

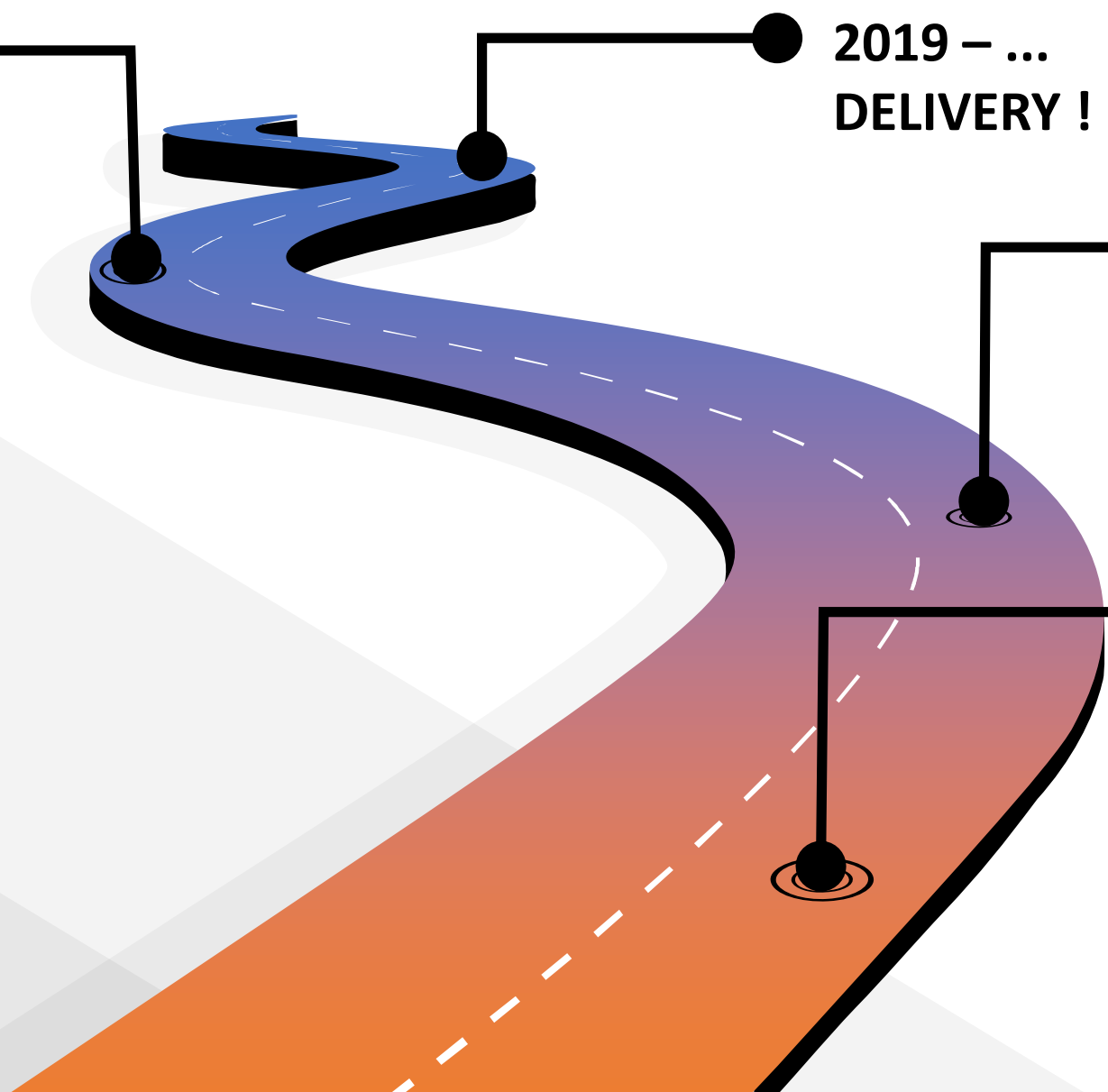
2019
INNOVATION
DIGITALIZATION

2019 – ...
DELIVERY !

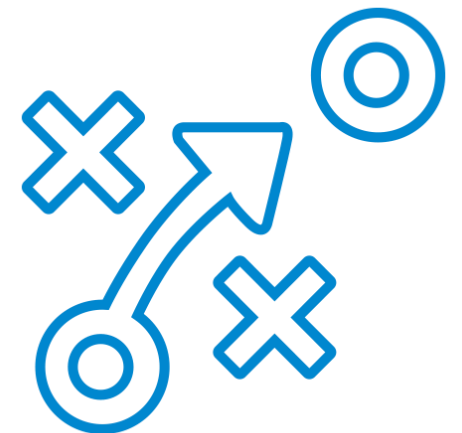
2018
IT GOVERNANCE

2017
DIGITAL
AWARENESS

Digital
RAIL
Roadmap



1. RealTime-Monitoring of active assets based on IOT, sensors et interconnected devices (locomotives, wagons, railway infrastructure)
2. Automated Monitoring of passengers and goods
3. Automated Circulation of Trains
4. Automatisatation of train preparation process (automated visit, digital brake test ...)
5. Use of AR / VR (field of maintenance, training, simulation)
6. Human Factor 4.0
7. Data(sources, flow, processing ...)
8. Use of Artificial Intelligence for process optimization
9. Digital Customer Experience/Enhancement
10. Automated and Autonomous Vehicles (bus, trucks, cars,....)





SOCIAL MEDIA – MAJOR SITES



facebook

CFL - Société Nationale des Chemins de Fer Luxembourgeois @cflinfos

Home Photos Videos Posts Events About Community

CFL - Société Nationale des Chemins de Fer Luxembourgeois
Transportation Service in Luxembourg, Luxembourg

Community

5 148 people like this
9 480 people follow this
88 check-ins

About




Neu bei Twitter?
Registriere dich jetzt, um deine eigene personalisierte Timeline zu erhalten.
Registrieren

LIGNE 10 LIGNE 60
LIGNE 50 LIGNE 10 RRAGE LIGNE

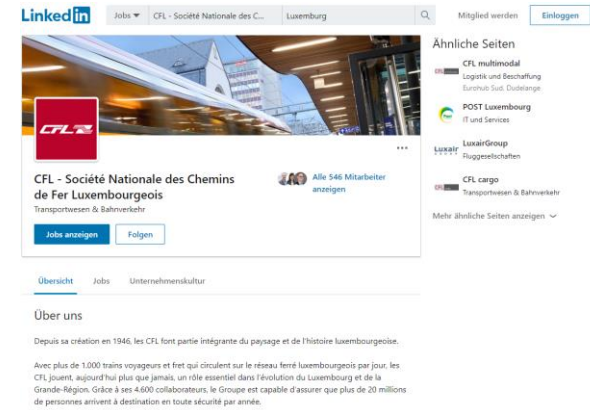
Trends

Bedingungen Datenschutzrichtlinien Cookies Anzeigen-Info Mehr v © 2020 Twitter, Inc.

CFLinfos @CFLinfos
Stay up to date about delays and disruptions on the Luxembourgish railway network.
This fully automated stream is not monitored. No interaction will occur.
Luxembourg · cfl.lu · Seit Februar 2016 bei Twitter
0 Folge ich · 1.584 Follower

Tweets Tweets und Antworten Medien Gefällt mir

CFLinfos @CFLinfos · 1 Std.
#CFLINFO510 Suppression du train RE 1712. Alternative. Suite à un problème technique sur le train, le train RE 1712 (Kautenbach-Wiltz, départ 12:02) est supprimé. Les voyageurs sont priés d'utiliser le train 1812, départ 12:32 de Kautenbach, arrivée 12:44 à Wiltz.

LinkedIn

CFL - Société Nationale des Chemins de Fer Luxembourgeois

Jobs · CFL - Société Nationale des C... · Luxembourg

Mitglied werden Einloggen

Ähnliche Seiten

- CFL multimodal Logistik und Beschaffung Eurobus Süd, Dudenlange
- POST Luxembourg IT und Services
- LocaliGroup Fluggesellschaften
- CFL cargo Transportwesen & Bahnverkehr

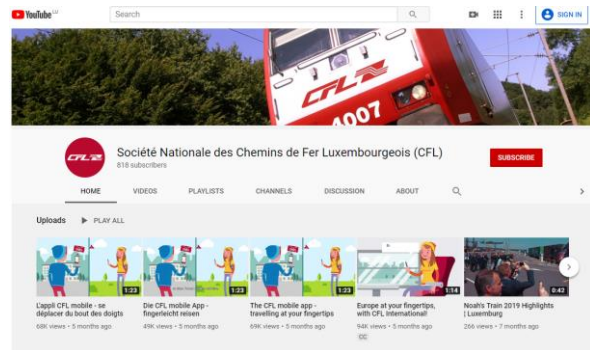
Mehr ähnliche Seiten anzeigen

CFL - Société Nationale des Chemins de Fer Luxembourgeois
Transportwesen & Bahnverkehr
Alle 546 Mitarbeiter anzeigen

Jobs anzeigen Folgen

Über uns

Depuis sa création en 1946, les CFL font partie intégrante du paysage et de l'histoire luxembourgeoise. Avec plus de 1.000 trains voyageurs et fret qui circulent sur le réseau ferré luxembourgeois par jour, les CFL jouent, aujourd'hui plus que jamais, un rôle essentiel dans l'évolution du Luxembourg et de la Grande-Région. Grâce à ses 4.600 collaborateurs, le Groupe est capable d'assurer que plus de 20 millions de personnes arrivent à destination en toute sécurité par année.

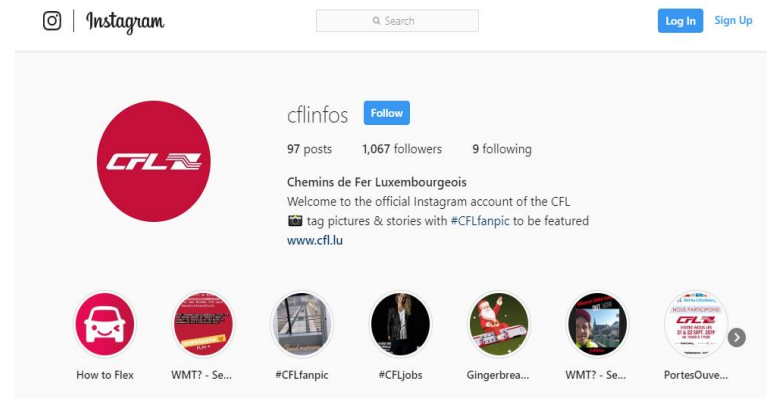
YouTube

Société Nationale des Chemins de Fer Luxembourgeois (CFL)
818 subscribers

HOME VIDEOS PLAYLISTS CHANNELS DISCUSSION ABOUT

Uploads

- L'appel CFL mobile se déploie au bord des digues 68K views · 5 months ago
- Die CFL mobile App - feigenricht reisen 49K views · 5 months ago
- The CFL mobile app - traveling at your fingertips 69K views · 5 months ago
- Example at your fingertips, with CFL international! 94K views · 5 months ago
- Nea's Train 2019 Highlights | Luxembourg 266 views · 7 months ago

Instagram

cflinfos Follow

97 posts 1,067 followers 9 following

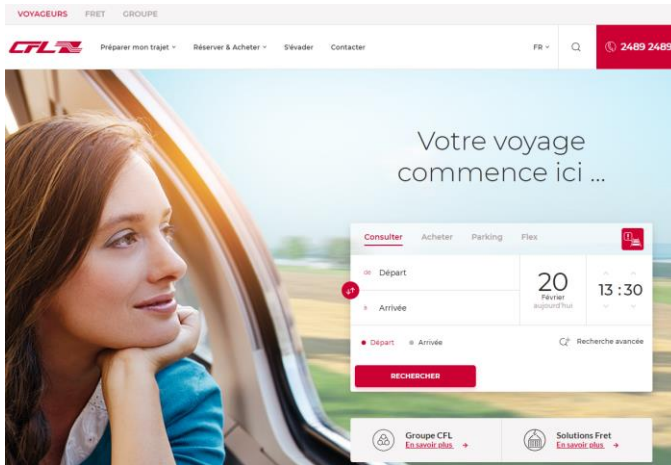
Chemins de Fer Luxembourgeois
Welcome to the official Instagram account of the CFL
tag pictures & stories with #CFLfanpic to be featured
www.cfl.lu

How to Flex WMT? - Se... #CFLfanpic #CFJobs Gingerbrea... WMT? - Se... PortesOuve...





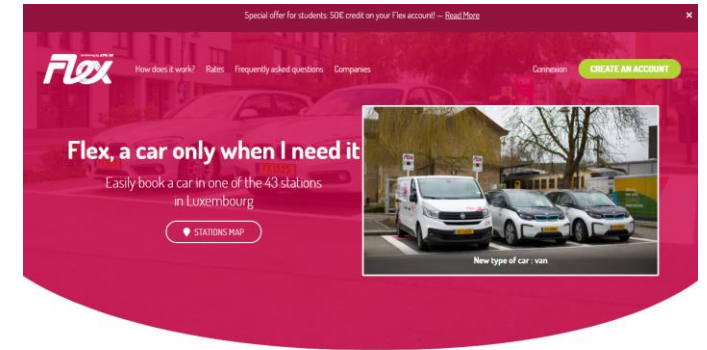
CFL INTERNET – MAJOR SITES



<https://www.cfl.lu>



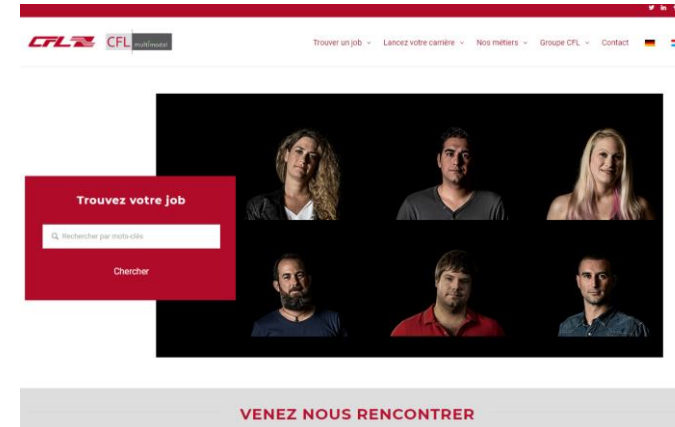
<https://groupe.cfl.lu>



<https://www.flex.lu>



<https://www.cfl-mm.lu>



<https://www.jobscfl.lu>

“Thou shall not develop what the customer do not ask for”

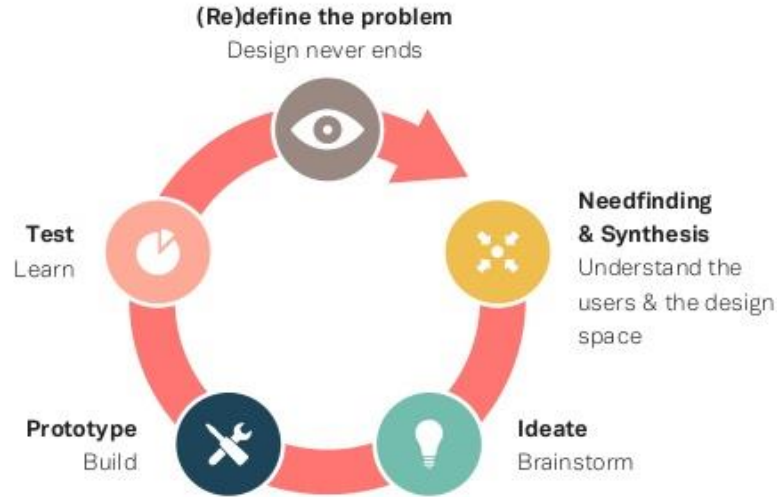
(Startup Rule)



Source Inconnu : Internet

BUT : “Be prepared when he asks”

Design Thinking Process



Rail Europe Experience Map

Guiding Principles

- People choose rail travel because it is convenient, easy, and flexible.
- Rail booking is only one part of people's larger travel process.
- People build their travel plans over time.
- People value service that is respectful, effective and personable.

Customer Journey

STAGES	Research & Planning	Shopping	Booking	Post-Booking, Pre-Travel	Travel	Post Travel
RAIL EUROPE	Research destinations, routes and products	Enter trips Select passes(s)	Confirm itinerary Delivery options Payment options Review & confirm	Wait for paper tickets to arrive	Activities, unexpected changes	Share experience Follow-up on refunds for booking changes
DOING	Destination pages Plan with interactive map Look up time tables Map itinerary (finding pass) Live chat for questions Talk with friends Blogs & Travel sites Google searches Kayak, compare airlines Web Research hotels	May call if difficulties occur	Change plane Check ticket status Print e-tickets at home Paper tickets arrive in mail	E-ticket Print at Station Get stamp for refund Buy additional tickets View maps Look up timetables Arrange travel Plan/confirm activities	Share photos Share experience (reviews) Request refunds Mail tickets for refund	
THINKING	<ul style="list-style-type: none"> What is the easiest way to get around Europe? Where do I want to go? How much time should I spend in each place for site seeing and activities? 	<ul style="list-style-type: none"> I want to get the best price, but I'm willing to pay a little more for first class. How much will my whole trip cost me? What are my trade-offs? Are there other activities I can add to my plan? 	<ul style="list-style-type: none"> Do I have all the tickets, passes and reservations I need in this booking so I don't pay more shopping? Rail Europe is not answering the phone. How else can I get my question answered? 	<ul style="list-style-type: none"> Do I have everything I need? Rail Europe website was easy and friendly, but when an issue came up, I couldn't get help. What will I do if my tickets don't arrive in time? 	<ul style="list-style-type: none"> I just figured we could grab a train but there are not more trains. What can we do now? Am I on the right train? If not, what next? I want to make more travel plans. How do I do that? 	<ul style="list-style-type: none"> Trying to return ticket I was not able to use. Not sure if I'll get a refund or not. People are going to love these photos! Next time, we will explore routes and availability more carefully.
FEELING	<ul style="list-style-type: none"> I'm excited to go to Europe! Will I be able to see everything I can? What if I can't afford this? I don't want to make the wrong choice. 	<ul style="list-style-type: none"> It's hard to trust Trip Advisor. Everyone is so negative. Keeping track of all the different products is confusing. Am I sure this is the trip I want to take? 	<ul style="list-style-type: none"> Website experience is easy and friendly! Frustrated to not know sooner about which tickets are e-tickets and which are paper tickets. Not sure my tickets will arrive in time. 	<ul style="list-style-type: none"> Stressed that I'm about to leave the country and Rail Europe won't answer the phone. Frustrated that Rail Europe won't ship tickets to Europe. Happy to receive my tickets in the mail! 	<ul style="list-style-type: none"> I am feeling vulnerable to be in an unknown place in the middle of the night. Stressed that the train won't arrive on time for my connection. Meeting people who want to show us around is fun, serendipitous, and special. 	<ul style="list-style-type: none"> Excited to share my vacation story with my friends. A bit annoyed to be dealing with ticket refund issues when I just got home.
EXPERIENCE	<ul style="list-style-type: none"> Enjoyability Relevance of Rail Europe Helpfulness of Rail Europe 	<ul style="list-style-type: none"> Enjoyability Relevance of Rail Europe Helpfulness of Rail Europe 	<ul style="list-style-type: none"> Enjoyability Relevance of Rail Europe Helpfulness of Rail Europe 	<ul style="list-style-type: none"> Enjoyability Relevance of Rail Europe Helpfulness of Rail Europe 	<ul style="list-style-type: none"> Enjoyability Relevance of Rail Europe Helpfulness of Rail Europe 	<ul style="list-style-type: none"> Enjoyability Relevance of Rail Europe Helpfulness of Rail Europe

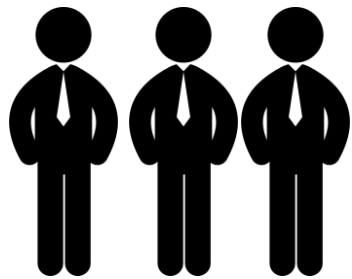
Opportunities

GLOBAL	PLANNING, SHOPPING, BOOKING	POST-BOOK, TRAVEL, POST-TRAVEL
<ul style="list-style-type: none"> Communicate a clear value proposition. STAGES: Initial visit 	<ul style="list-style-type: none"> Enable people to plan over time. STAGES: Planning, Shopping 	<ul style="list-style-type: none"> Improve the paper ticket experience. STAGES: Post-Booking, Travel, Post-Travel
<ul style="list-style-type: none"> Help people get the help they need. STAGES: Global 	<ul style="list-style-type: none"> Visualize the trip for planning and booking. STAGES: Planning, Shopping 	<ul style="list-style-type: none"> Accommodate planning and booking in Europe too. STAGE: Traveling
<ul style="list-style-type: none"> Support people in creating their own solutions. STAGES: Global 	<ul style="list-style-type: none"> Connect planning, shopping and booking on the web. STAGES: Planning, Shopping, Booking 	<ul style="list-style-type: none"> Arm customers with information for making decisions. STAGES: Shopping, Booking
<ul style="list-style-type: none"> Make your customers into better, more savvy travelers. STAGES: Global 	<ul style="list-style-type: none"> Aggregate shipping with a reasonable timeline. STAGE: Booking 	<ul style="list-style-type: none"> Proactively help people deal with change. STAGES: Post-Booking, Traveling
<ul style="list-style-type: none"> Engage in social media with explicit purposes. STAGES: Global 		<ul style="list-style-type: none"> Communicate status clearly at all times. STAGES: Post-Booking, Post-Travel

Information sources: Stakeholder interviews, Cognitive walkthroughs, Customer Experience Survey, Existing Rail Europe Documentation

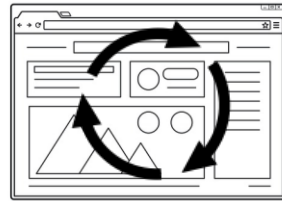
Legend: Ongoing, not-time based; Linear process; Non-linear, not-time based

STRATEGIC



« Design Thinking »

IDEATE/DESIGN



« Transversal »
 « Design Thinking »
 « Wireframes »
 « Functional Analysis »

IDEATE/CREATE

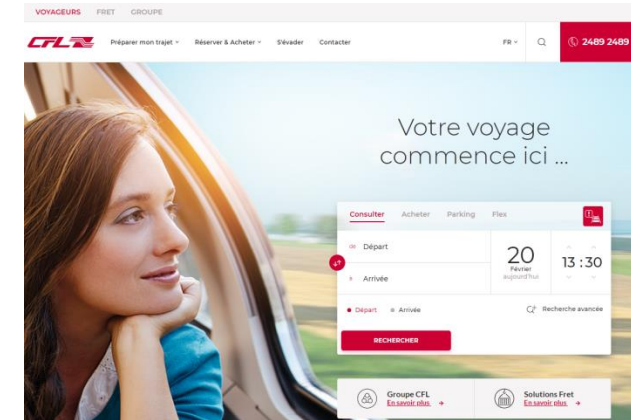


« Transversal »
 « MVP »
 « Agile, Sprint »
 « One Platform »
 « Customer Specific »

- Feedback
- Innovation
- Technology



CONTINUOUS IMPROVMENT



« Launch »

THANK YOU !

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