

A DIGITAL APPROACH: RUSWEB AND DIGIFRET

SNCF LOGISTICS / FRET SNCF / IT DEPARTMENT
JEUDI 13 OCTOBRE 2016



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USE CASE 1 : RUSWeb

FREIGHT TRAIN MANAGEMENT TOOL



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CUSTOMER REQUIREMENTS



INITIAL SITUATION

There was no quick and comprehensive tool for monitoring traffic and composition of Fret SNCF trains.

FOR WHAT ?

Find quickly, easily and on the go the right information from the tool necessary for supervision and decision needs.

FOR WHO ?

Supervisors and our « control tower »

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OUR SOLUTION



A WEB APPLICATION

Quick to open, no installation required

RESPONSIVE

Only one application to maintain, for use on PC and tablet

DESIGNED WITH USERS

User Experience is our philosophy

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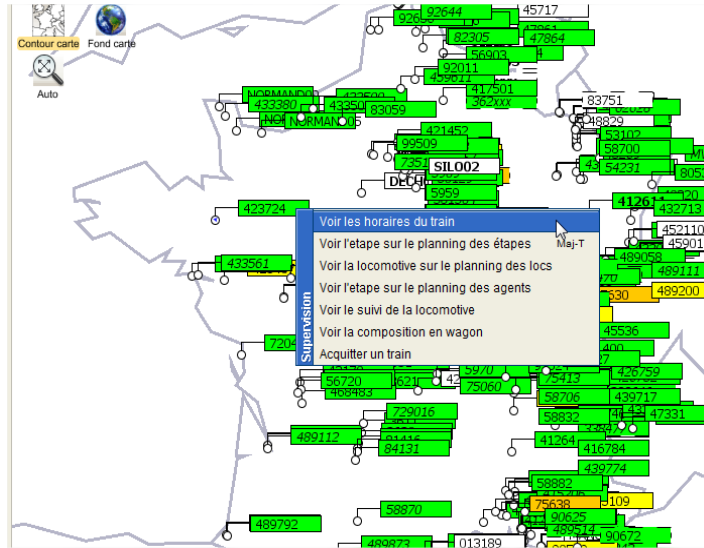
BEFORE

TO FIND...

- the delay of a train
- its itinerary
- its composition

YOU HAD TO...

- open a software
- wait
- click
- wait
- click
- wait
- click
- wait
-



Horaires du train

N°	No. train	Point de passage	arrêt	Etape	Heure Théorique	Heure réelle
1	433561	DGB Conges B&B Voyageurs 481721 000BV			14:15	
2	433561	PY La Priory Poste 487900 000PO			14:23	
3	433561	MDB Montoir-de-Bretagne EIS DPM 481713 000ES			14:30	
4	433561	MDB Montoir-de-Bretagne SANS LIBELLE 481713 00000			14:31	
5	433561	XDM La Croix-de-Méan B&B Voyageurs 481689 000BV			14:38	
6	433561	SN SN-Nazaire Triage 481705 000TR		N/A	14:40	

Liste des voyages de train

N°	Wag	N° Wag	DC	Non Expé.	Etat charge	Origine	Destination
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

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NOW

FRET SNCF SUPERVISION GESTION DE CASSES

N° de Site

Train 75017
N° P41016 du 26/09

En avance de 16 min

JALON. COMPO. LOC.

ULMFC
21 wagons / 315 m / 1084 T

DFCA SUBFF12 DF 98 PCM

1 887544
T 887543

Train 75017
N° P41016 du 26/09

En avance de 16 min

JALON. COMPO. LOC.

Lot 1
1w-14m-87T-59MF

MD

PCM

N° DC 5323173
ADISSEO FRANCE S.A.S
62960 kg
ST-CLAIR-LES-ROCHES | ADISSEO
COMMENTARY | ADISSEO FRANCE SAS

MD 80 1830

Lot 2
7w-116m-174T-192MF

DC n°5321501

DFSR

SIBELIN
ST-GERMAIN-DES-FOSSES

Lot 3
4w-80m-95T-101MF

PCM

Lot 4
9w-107m-729T-417MF

DC n°5257712

DFCA

SIBELIN TRIAGE DÉPÔT | FOS-COUSSEUIL | SOLLAC
CLERMONT-FERRAND

ENGIN N° BB75454
Gestionnaire UL MFC

En traction

Origine: 26/09 12:05 SIBELIN TRIAGE DÉPÔT
Destination: 26/09 17:03 St-Germain-des-Fossés
Opération: Mission N° P41016

ENGIN N° BB75435
Gestionnaire UL MFC

En traction

Origine: 26/09 12:05 SIBELIN TRIAGE DÉPÔT
Destination: 26/09 17:03 St-Germain-des-Fossés
Opération: Mission N° P41016

406343(-2)



Real-time data

With a maximum of 3 clicks, you get informations on :

- itinerary
- overall composition
- detailed composition
- dangerous goods
- strategic trains

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CRISIS MANAGEMENT

BEFORE, YOU HAD TO :

- Open 3 different tools
- Open Excel
- Import a file
- Filter trains manually
- Find each train composition
- Complete the excel file

NOW, YOU JUST HAVE TO :

- Open the crisis within the web application
- See the results
- Export an excel file if you want
- Close the crisis

The screenshot shows the FRET SNCF web application interface. The top navigation bar includes 'FRET SNCF', 'SUPERVISION', and 'GESTION DE CRISES'. Below the navigation bar, there are three tabs: 'Varangéville-St-Nicolas (16:09)', 'SELESTAT (10:13)', and 'Montereau (16:17)'. The main content area features a map of France with red diamond markers indicating incident locations. To the right of the map, there is a panel titled 'INCIDENT A Varangéville-St-Nicolas 16:9' with an 'EXPORTER' button. Below this, it states 'Trains impactés dans les 6 heures suivant'. A table titled 'Trains Fret Impactés' displays the following data:

Passage	Train	Perte	Circulation
30/9/2016 16:32	80624	Pair	Départ à 30/09/2016 16:30
30/9/2016 17:14	431033	Impair	Départ à 30/09/2016 15:40
30/9/2016 18:23	1904	Pair	Départ à 30/09/2016 17:30

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USE CASE 2 : DIGIFRET

A MOBILE APPLICATION FOR TABLETS



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CUSTOMER REQUIREMENTS



REPLACING THE TOOL USED BY WORKERS (MORE THAN 1200 USERS)



Remise 09:07

Numero wagon		Rq	Nb. Essieux		
33 87 785 3447 3		01	04		
M. ch	Tare	M. brute	Ch. D		
22000	18210	40210	2 Non		
Long.	V Max	M. frein	C. état		
125	2 120	42	1 S		
C div/res		ATE/ATP			
<input type="checkbox"/>		<input type="checkbox"/>			
Observation		Avarie ?	MD		
<input type="text"/>		<input type="text"/>			
C div/res		[1]FR	[2]PS	[3]AC	
		[4]BI	[5]MQ	[6]LR	
		[0]RI	[7]AO	[8]EC	[9]SD
← Suppr.		Terminer		→	

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OUR SOLUTION



NEW EQUIPMENT

**NEW TECHNOLOGY
(ANDROID, WEBSERVICES...)**

USER INTERFACE OF TODAY

**NEW METHOD OF TRAINING
(VIDEO, SANDBOX...)**

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OUR APPROACH



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USER EXPERIENCE

THE 5 LEVELS OF THE PROCESS

SURFACE
VISUAL DESIGN

SKELETON
WIREFRAMES

STRUCTURE
SITE MAP / SCREEN FLOW

SCOPE
REQUIREMENTS / CONTENT

STRATEGY
CONCEPT / USER RESEARCH

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01.

ADOPTING A UX APPROACH

- + WHAT IS UX DESIGN?
- + BENEFITS OF UX

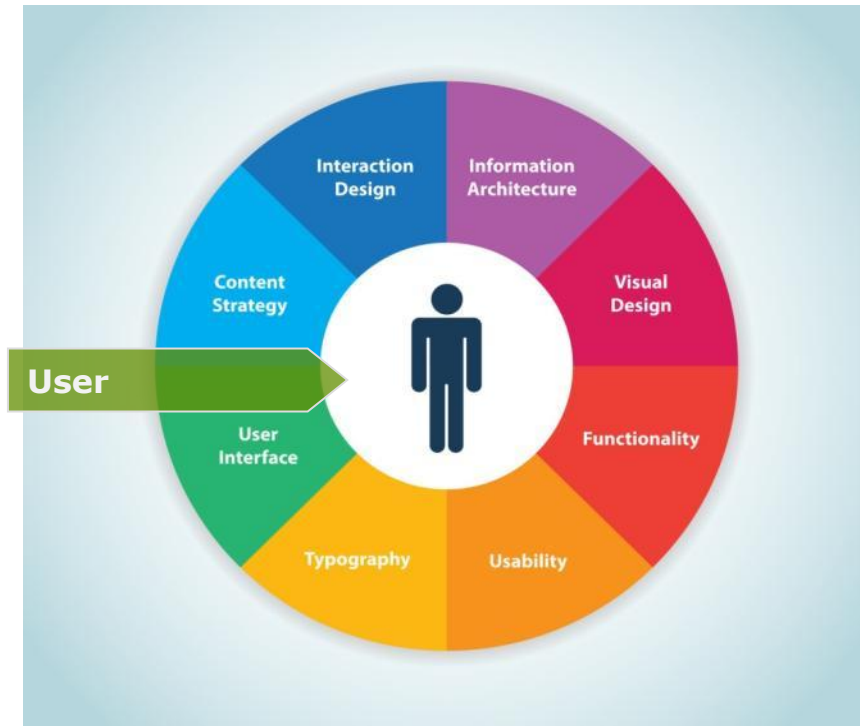
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WHAT IS UX DESIGN?



A user-centered approach

- +The user is the main source of information.
- +Defines pleasure, usability and functionality as the 3 principles of a product design.

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BENEFITS OF UX

- +Productivity: eliminating frictions
- +Motivation: focusing on pleasure of use
- +Accessibility: building an intuitive tool and reducing training costs
- +Security: reducing human errors
- +Efficiency: targeting use cases
- +Empathy: listening to users



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02. DESIGN THINKING METHOD

+ STEPS AND DELIVERABLES

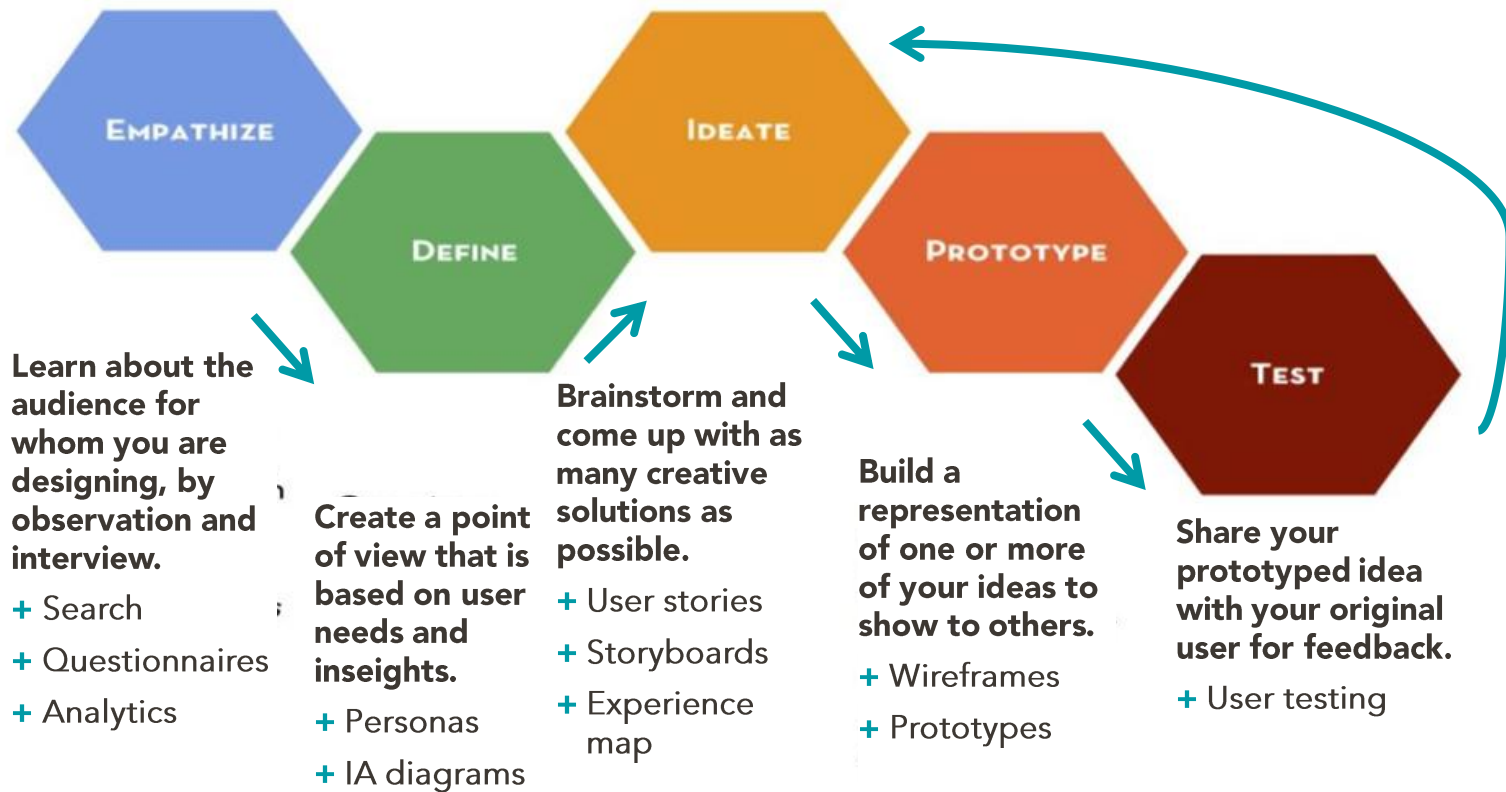
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STEPS AND DELIVERABLES



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03.

USE CASE : RUSWEB

- + STEP 1 : GATHERING BUSINESS GOALS
- + STEP 2 : DEFINING THE USERS
- + STEP 3 & 4 : CONCILIATE CLIENT REQUIREMENTS WITH USER NEEDS
- + STEP 5 : TESTING DESIGN HYPOTHESIS

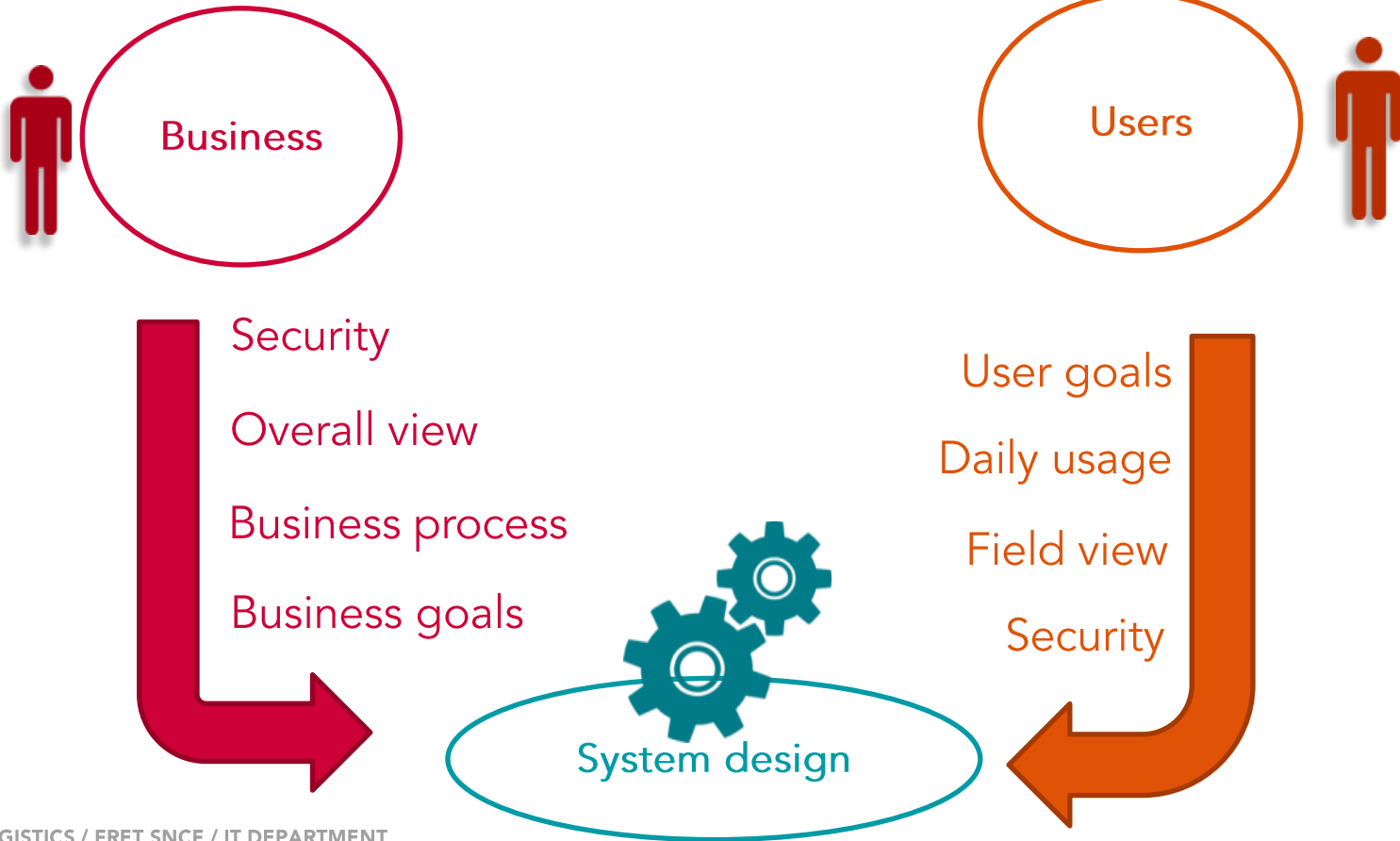
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STEP 1 : GATHERING BUSINESS GOALS



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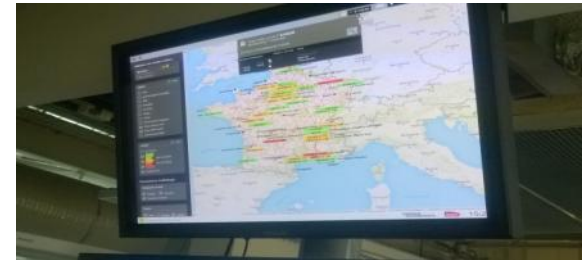


STEP 1 : GATHERING BUSINESS GOALS

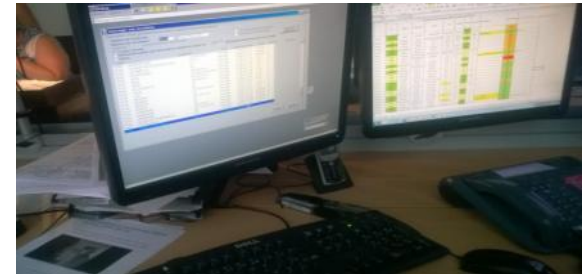
Visiting COF (Paris, Gare de l'Est), where are working our users



Reviewing the current tool used : data robust to database downtimes but without information regarding train composition.



User interviews and observation of the tool used within a particular context



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STEP 2 : DEFINING THE USERS

Persona : Superviseur COF (total 14 individus)



Nom Fictif

Philippe COFFEUR

Métier

Superviseur table Nord COF

Description démographique

42ans

Marié avec enfants

11ans SNCF dont 3 au COF (le reste en DDP Direction Déléguée Production)

Objectifs et tâches

Une bonne capacité à appréhender les enjeux du terrain, il accorde une grande importance à l'exactitude des informations et répond vite aux situations d'urgences.

Personas : don't forget that your users are human

- Mettre à jour et surveiller un portefeuille de trains « sensibles » et calés
- Appeler les acteurs d'un train (Plateaux Marchés) pour dispenser des instructions en résolution d'aléas
- Remplir un rapport d'incident (sous format Excel) en concaténant les données RusProd et Bréhat en cas de forte crise

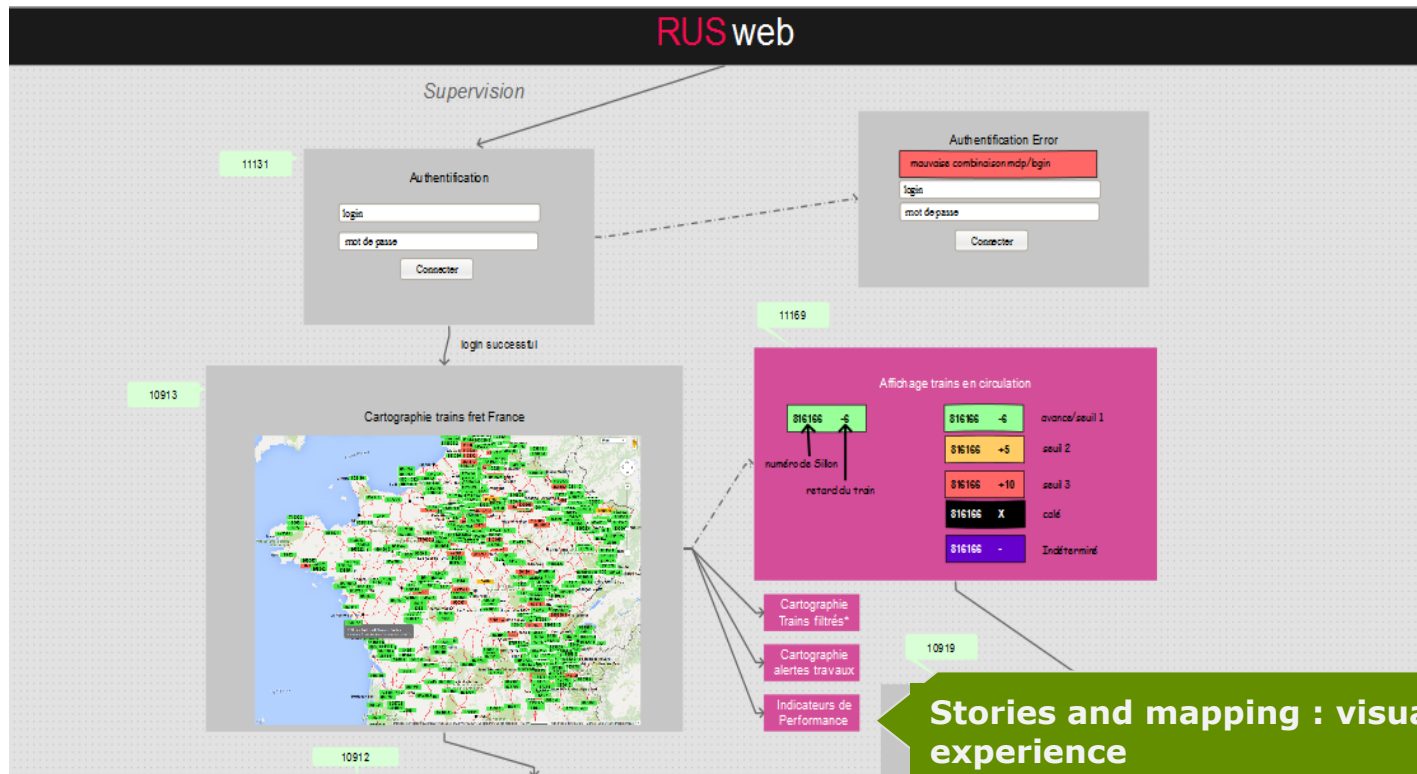
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STEP 3 & 4 : CONCILIATE CLIENT REQUIREMENTS WITH USER NEEDS



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STEP 3 & 4 : CONCILIATE CLIENT REQUIREMENTS WITH USER NEEDS

Mockups and quick prototypes : Communicate design ideas

Train avec Matières dangereuses avec retard de 25min

Arrivée	Départ	Retard	Horaires réels	Points de passage
17:38	17:38		17:38	Lieusaint-Moissey LIBELLE
17:38	17:45		17:45	Comb-la-Ville LIBELLE
17:45	17:48	+20min	17:48	Boussy-St-Antoine LIBELLE
17:48	17:51	+25min	17:51	Brunoy LIBELLE
17:51	17:53			Yerres LIBELLE
17:53	17:55			Montgeron-Crosne LIBELLE
17:55				Villeneuve-St-George LIBELLE

Train avec matières dangereuses calé à Brunoy

Arrivée	Départ	Retard	Horaires réels	Points de passage
17:38	17:38		17:38	Lieusaint-Moissey LIBELLE
17:38	17:45		17:45	Comb-la-Ville LIBELLE
17:45	17:48	+20min	17:48	Boussy-St-Antoine LIBELLE
17:48	17:51	+125min	17:51	Brunoy LIBELLE
17:51	17:53			Yerres LIBELLE
17:53	17:55			Montgeron-Crosne LIBELLE
17:55				Villeneuve-St-George LIBELLE

Train avec matières dangereuses calé à Brunoy, affichage complet

Arrivée	Départ	Retard	Horaires réels	Points de passage
17:38	17:38		17:38	Lieusaint-Moissey LIBELLE
17:38	17:40		17:40	Comb-la-Ville LIBELLE
17:45	17:48	+20min	17:48	Boussy-St-Antoine LIBELLE
17:48	17:51	+125min	17:51	Brunoy LIBELLE
17:51	17:53			Yerres LIBELLE
17:53	17:54			Yerres-sur-Lac LIBELLE
17:57	17:59			Montgeron LIBELLE
18:00				Montgeron-Crosne LIBELLE
				Villeneuve-St-George LIBELLE

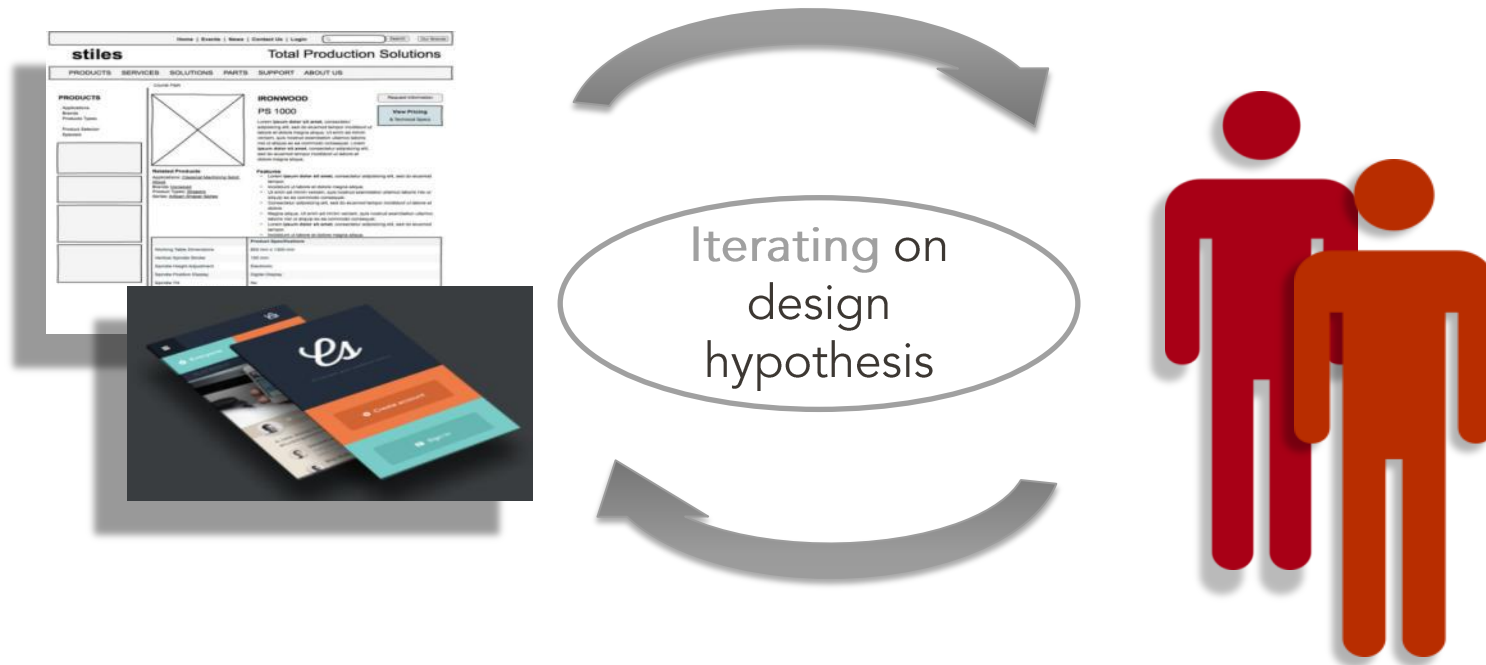
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STEP 5 : TESTING DESIGN HYPOTHESIS



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CONCLUSION



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What we do...

Going on the field, evaluating context and final user

Quick prototyping

User testing

New approach of training

Quality of data

Comprehension of strategic business issues

...in order to improve

Security

Motivation

Quality of data

Efficiency

Accessibility

Productivity

Costs reducing

THANK YOU.



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