VOLUME 0

ARCHITECTURAL, LANDSCAPING AND VISUAL IDENTITY DESIGN GUIDELINES FOR RAIL BALTICA

RB Rail AS

Rail Baltica | 3TI PROGETTI | SBS ENGINEERING GROUP

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INTRODUCTION

VOLUME 0

Expectation and deliverables

01

Interpretation

The Architectural, Landscaping and Visual Identity Design Guidelines will assist the future designers to develop design for each Rail Baltica architectural and landscaping elements using the proposals and rules outlined to achieve the ‘look and feel’ described in the Design Guidelines.

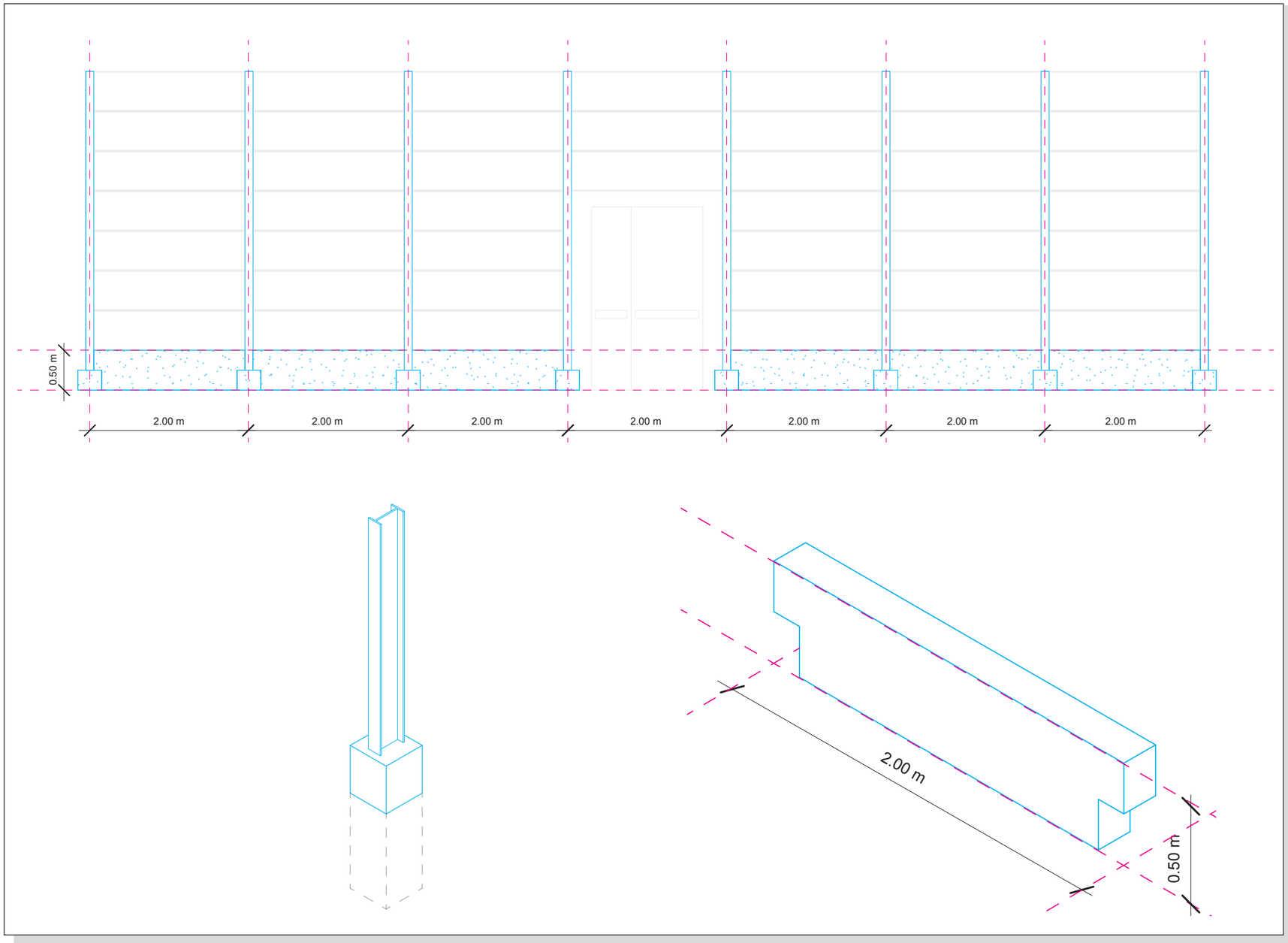
The guidelines contain the visual identity templates that must be achieved and describe the required ‘look and feel’ for all the Rail Baltica project element.

Future designers needs to define the projects applying the appropriate geometry rules documented in the Architectural, Landscaping and Visual Identity Design Guidelines to ensure that the correct geometry is achieved.

All drawings should be considered as reference to define design solutions for Rail Baltica project.

Expectation and deliverables

It is part of the future design process to adapt and develop the systems proposed in the Architectural, Landscaping and Visual Identity Design Guidelines. This mean that the Architectural, Landscaping and Visual Identity Design Guidelines elements may change in detail but not change the overall design intent. Alternative proposals will have to be approved by Rail Baltica on a case by case. Future designers will have to produce high quality projects that will demonstrate that the design intent is achieved.



Interpretation

02

Typical layout

The Guidelines will support designers to develop project proposals for each branding element through the use of rules, recommendations, advices and suggestions. Depending on the cases, the treated elements will be subject of three different types of rules:

May: a possibility - that indicates a permissible course of action within the limits of the standards, but which is not mandatory to be fulfilled.

Should: a recommended rule - that indicates preferred course of action, recommendations. There may exist valid reasons in particular circumstances to ignore a particular item, but the full implications must be understood and carefully weighed before choosing a different course.

Shall: a mandatory rule - that indicates mandatory requirement that must be strictly implemented. Any impossibility to fulfill this requirement must be agreed through a derogation case.

Must: an obligation - that indicates an obligation or a mandatory requirement which bind the designer to follow fixed standard.

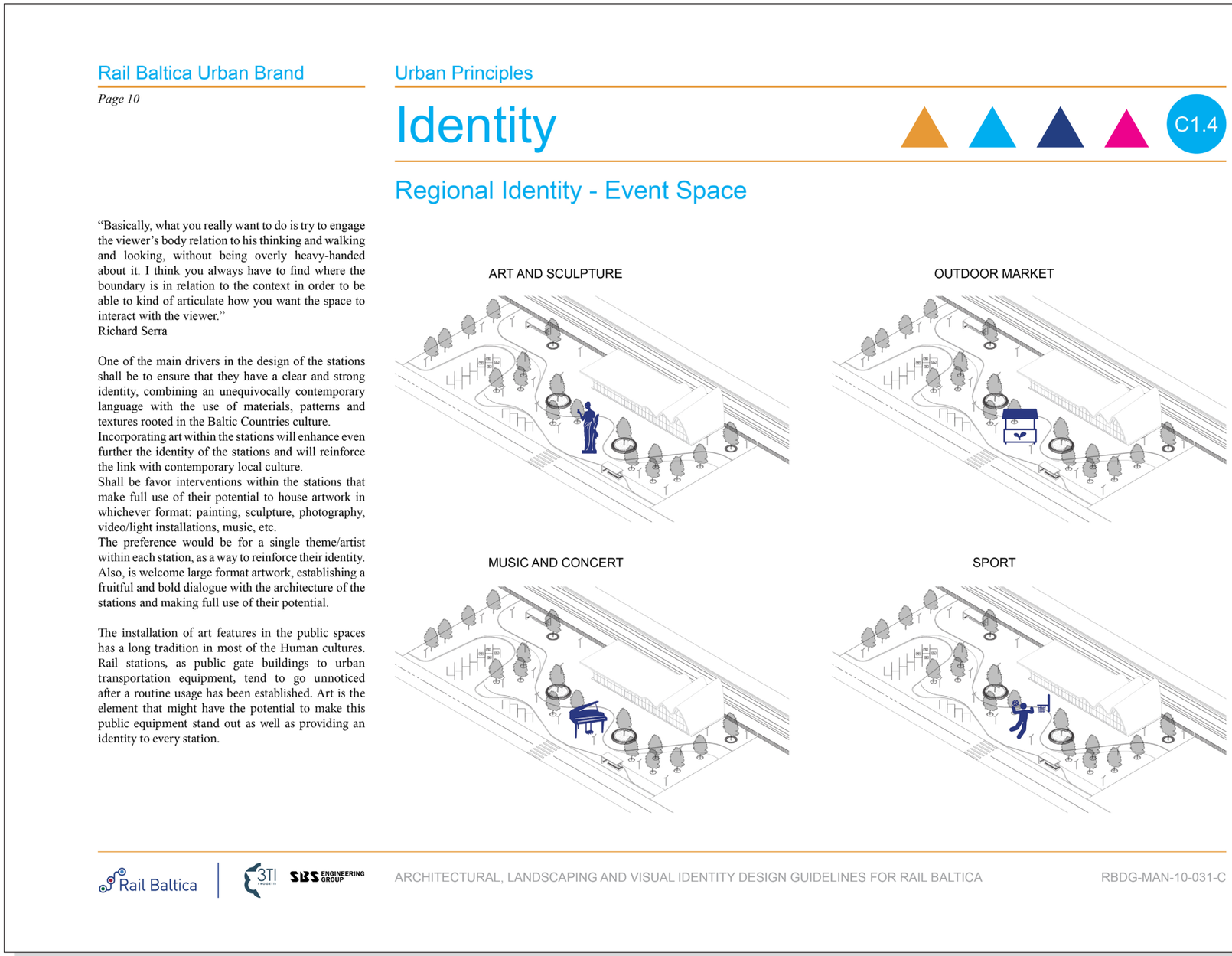
Triangular symbols will be inserted inside the manual to warn designers of the kind of rules to follow, as shown below:

MAY - Possibility

SHOULD - Recommendation

SHALL - Mandatory requirement

MUST - Obligation



Interpretation

02

Typical layout

The Guidelines will provide not only instruction on geometry and design that should be used in the design process, but also Design Principles.

If the page of the manual illustrates a design principle, the instruction should be considered not as a rule but as a suggestion that it is highly recommended to follow.

Adaptability

C1.3

Rail Baltica railway line extends for 850 km crossing three different countries:

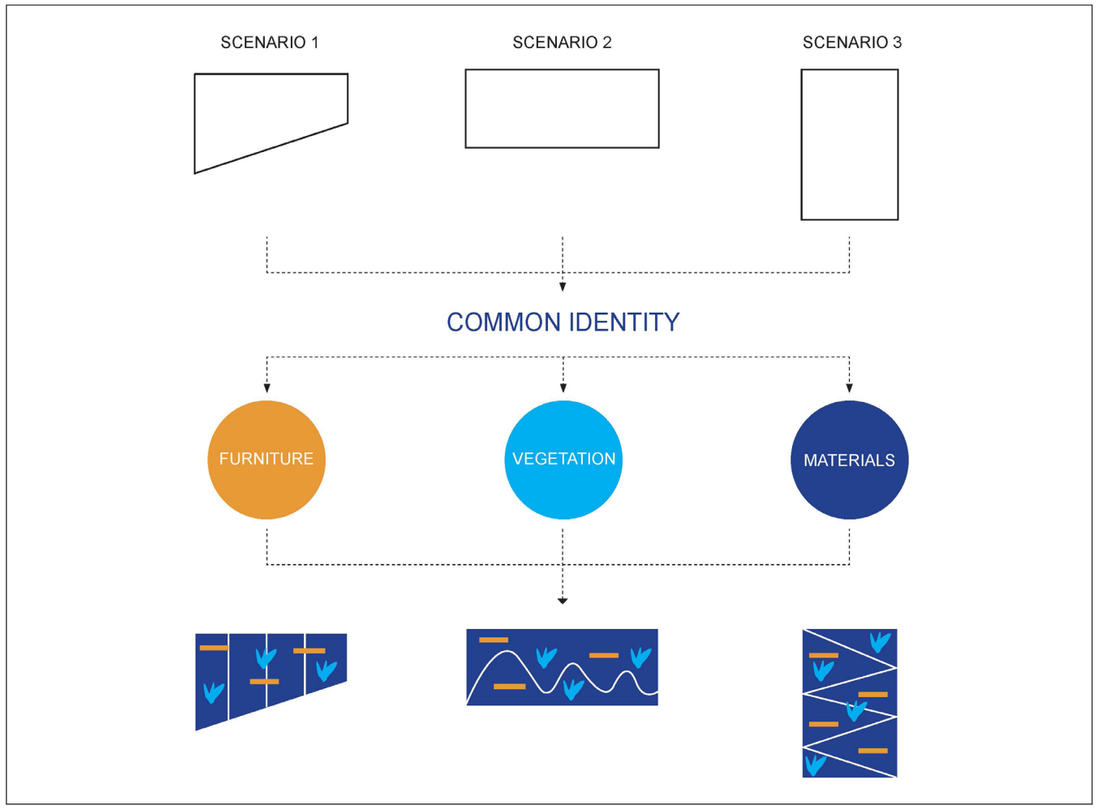
- Estonia
- Lithuania
- Latvia

Each country has its own environment and cultural traditions. Moreover, each regional station will be placed in site areas that differ in terms of the urban context, dimension, and geometry.

Based on these considerations, it's very difficult to define a design and ensure a common identity in all the site areas.

Guidelines instructs the designers to use specific furniture, signage, materials, and vegetation in order to ensure a Network identity to each regional station.

Use these standardize elements in each public area, the design became adaptable to any context but recognizable.



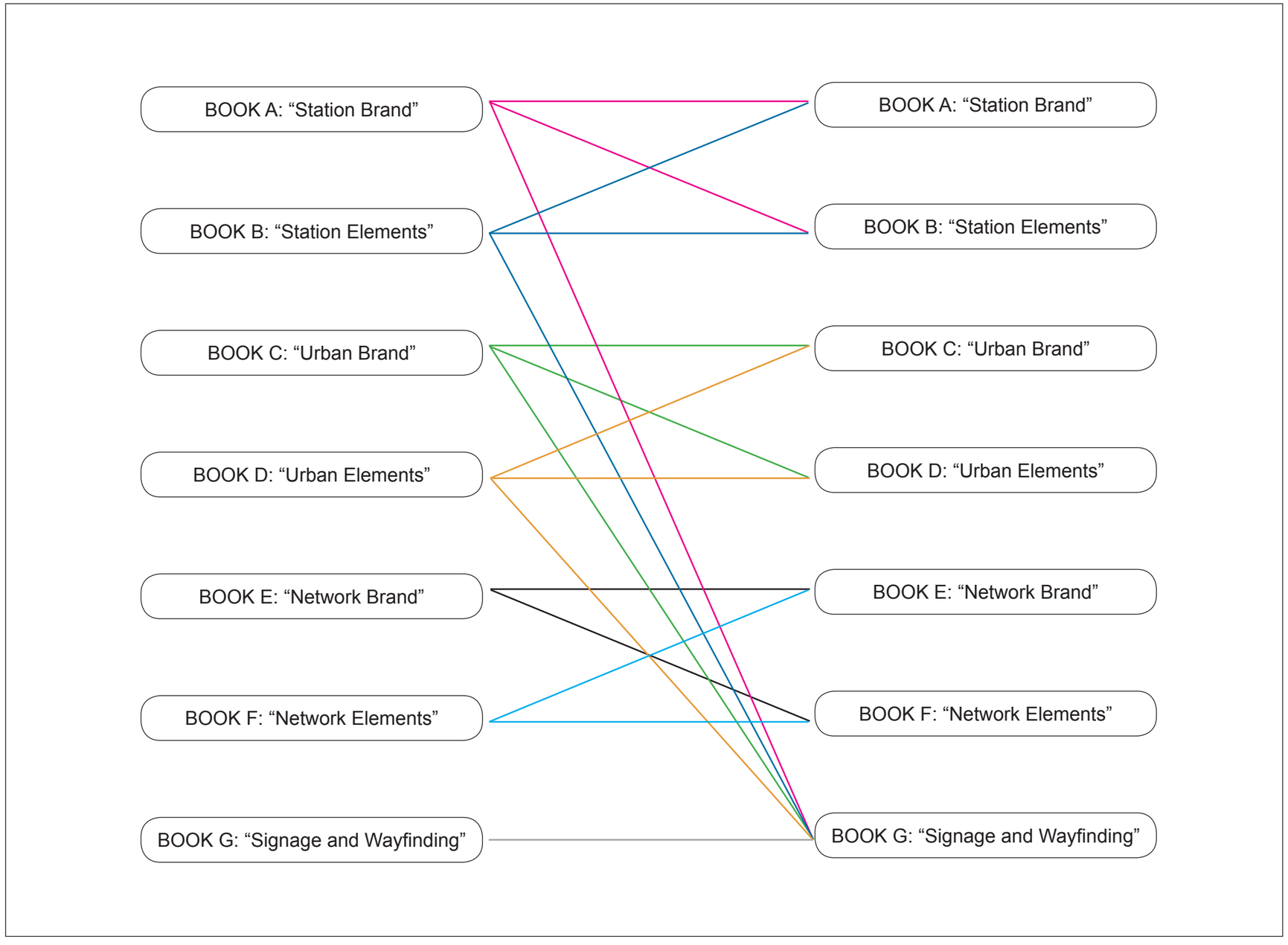
Books Structure

03

Guidelines will be used by future designers and municipalities in order to design each architectural, landscaping and visual identity element which is part of the Rail Baltica project, providing a common and recognizable identity to each element.

Architectural, Landscaping and Visual Identity Design Guidelines are structured of 7 books and a Volume 0, each one focused on a specific topic.

Books are directly connected to each other and the scheme easily illustrates how to use together with the books.



Books Elements

04

As these guidelines shall be applied in multiple conditions and with various scenarios, it was not possible to assign exact measurements to each element.
To this flexible elements have been given instructions through design principles, that ensure the recognizability, the quality and the modularity needed in the project.
Extra parameters have been provided to the elements which need some technical requirements that can change the visual design of the element itself.

ALG Item	Book	Coding	Exact dimensions	Design principles only	Prefabricated
STATION	B	B1			
Station classification	B	B1.1			
International Station	B	B1.2			
Regional Station	B	B1.3			
Modular Strategy	B	B1.4	X		
Growth Strategy	B	B1.5	X		
Layout	B	B1.6	X		
Design	B	B1.7			
Structure	B	B1.8			
Facade	B	B1.9	X		X
Floor	B	B1.10	X		
Walls	B	B1.11	X		X
Ceiling	B	B1.12	X		
Roof	B	B1.13	X		X
Signage and Wayfinding	B	B1.14	X		X
Furniture	B	B1.15	X		X
Equipment	B	B1.16		X	
UNDERPASS	B	B2			
Matrix	B	B2.1			
Concept design	B	B2.2			
Layout	B	B2.3			
Materials	B	B2.4			
PLATFORM	B	B3			
Matrix	B	B3.1			
Layout		B3.2	X		
Floor	B	B3.3	X		
Shelter	B	B3.4	X		X

Books Elements

ALG Item	Book	Coding	Exact dimensions	Design principles only	Prefabricated
Lighting	B	B3.5			
Signage and Wayfinding	B	B3.6	X		X
Furniture	B	B3.7	X		X
Universal design	B	B3.8			
OVERPASS	B	B4			
Matrix	B	B4.1			
Concept design	B	B4.2			
Layout	B	B4.3	X		
Materials	B	B4.4			
Structure	B	B4.5			
LANDSCAPE	D	D1			
Requirements	D	D1.1			
Station classification	D	D1.2			
Zoning startegy	D	D1.3		X	
Identity	D	D1.4			
Design strategy	D	D1.5		X	
Adaptability	D	D1.6		X	
Hardscape	D	D1.7			
Softscape	D	D1.8			
Signage and wayfinding	D	D1.9	X		X
Shelter	D	D1.10	X		X
Furniture	D	D1.11	X		X
Accessibility	D	D1.12		X	
Design proposal	D	D1.13	X		
RAILWAY BRIDGE	F	F1			
Matrix	F	F1.1			
Concept Design	F	F1.2			
Design Strategy	F	F1.3		X	
Geometry	F	F1.4		X	X
Materials	F	F1.5			
Branding Implementation	F	F1.6	X		
EMBANKMENT & CUT	F	F2			

Books Elements

ALG Item	Book	Coding	Exact dimensions	Design principles only	Prefabricated
Matrix	F	F2.1			
Concept Design	F	F2.2			
Design Strategy	F	F2.3		X	
Geometry	F	F2.4		X	X
Materials and Vegetation	F	F2.5			
ROAD OVERPASS	F	F3			
Matrix	F	F3.1			
Concept Design	F	F3.2			
Design Strategy	F	F3.3		X	
Geometry	F	F3.4		X	X
Materials	F	F3.5			
NOISE BARRIER	F	F4			
Matrix	F	F4.1			
Concept Design	F	F4.2			
Design Strategy	F	F4.3		X	
Geometry	F	F4.4	X		X
Materials	F	F4.5			
Branding implementation	F	F4.6	X		X
ANIMAL PASSAGE	F	F5			
Matrix	F	F5.1			
Concept Design	F	F5.2			
Design Strategy	F	F5.3		X	
Geometry	F	F5.4		X	X
Materials & Vegetation	F	F5.5			
Branding implementation	F	F5.6	X		X
PEDESTRIAN OVERPASS	F	F6			
Matrix	F	F6.1			
Concept Design	F	F6.2			
Design strategy	F	F6.3		X	
Geometry	F	F6.4		X	X
Materials	F	F6.5			
Branding implementation	F	F6.6	X		X

Books Elements

ALG Item	Book	Coding	Exact dimensions	Design principles only	Prefabricated
SIGNAGE GENERAL STRATEGY	G	G1			
General wayfinding strategy	G	G1.1		X	
General positioning strategy	G	G1.2	X		X
General design strategy	G	G1.3	X		X
Sign specific design & positioning	G	G1.4			
Sign plan	G	G1.5			
Making layouts	G	G1.6			
SIGNAGE STATIONS & URBAN AREAS	G	G2			
Sign Plan	G	G2.1			
Ceiling Sign	G	G2.2	X		X
Wall Sign	G	G2.3	X		X
Fingerpointer Sign	G	G2.4	X		X
Totem Sign	G	G2.5	X		X
Urban Directional Sign	G	G2.6	X		X
Emergency Sign	G	G2.7	X		X
Commercial Sign	G	G2.8	X		X
Visulaisations	G	G2.9			
Technical Details	G	G2.10			

Project Introduction

RB Rail AS is a multi-national joint venture of the Republics of Estonia, Latvia and Lithuania, which has been established to implement Rail Baltica – the first pan-Baltic infrastructure project of its kind.
RB Rail AS is the central coordinator for the Rail Baltica project.

Rail Baltica is a greenfield rail transport infrastructure project with a goal to integrate the Baltic States in the European rail network. The project includes five European Union countries – Poland, Lithuania, Latvia, Estonia and indirectly also Finland.
The Rail Baltica project is a symbolic return of the Baltic States to Europe.
Up to World War II the Baltic States were connected to Europe with standard 1435 mm gauge railway, but after the war, they have been changed to Russian gauge of 1520 mm.
Today most rail freight traffic in the Baltics originates from CIS countries, Russia in particular, and the 1520 mm system makes it difficult and costly to interconnect the Baltics with the rest of EU via Poland.
Therefore, there is a full consensus on the need to fully integrate Estonia, Latvia and Lithuania into the single European railway area, eliminating the missing rail link of the EU's North Sea – Baltic TEN-T Core Network Corridor.

Picture
Tallinn central station - Tallinn, Estonia
Credits: Veiko Tubin

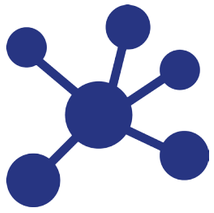
Project Introduction

The Architectural, Landscaping and Visual Identity Design Guidelines have the aim to ensure common architectural identity of the entire Rail Baltica railway line defining the “Rail Baltica Identity” of each element.

The Architectural, Landscaping and Visual Identity Design Guidelines achieve the following objectives for the Rail Baltica line, which reflects the Baltic countries mission:

- Establish an Identity recognizable along the Baltic countries
- Improve the existing connectivity and integrate Estonia, Latvia and Lithuania into the European railway area.
- Realize a safe, modern and environmentally friendly rail line.

One of the main aims of the design of the Rail Baltica project is to manage each designed element according to an identity scale. From the concept of the station to the acoustic barrier, each element must be recognizable as part of the Rail Baltica project and at the same time has to reflect the identity of their own country.



The current state of art of the railway line creates a clear separation between the Baltic countries and the rest of Europe. Nowadays, the best way to reach the Baltic countries from Europe is to travel by plane, which is expensive, in terms of costs and time, and difficult because of the absence of daily direct flights from the main airports.

Rail Baltica has the aim of reconnecting these countries in the Europe rail network in order to improve the usage of the rail system by people and for freight.

Rail Baltica will be fully electrified so that any emissions will be avoided. The newest technologies and materials are going to be utilized in its construction.
The line will be built according to the most stringent safety requirements. Passenger stations will have all the necessary facilities in order to make the access to the train services an easy and pleasant experience to anybody.
Most up-to-date technologies and materials will be used. Some of them are still in the process of elaboration, standardization or early stages of commercialization.
Railway stations will represent the latest developments in the area of multimodal passenger terminals connecting conveniently different urban, regional and long distance services with car and bike parking, shopping and recreative areas.

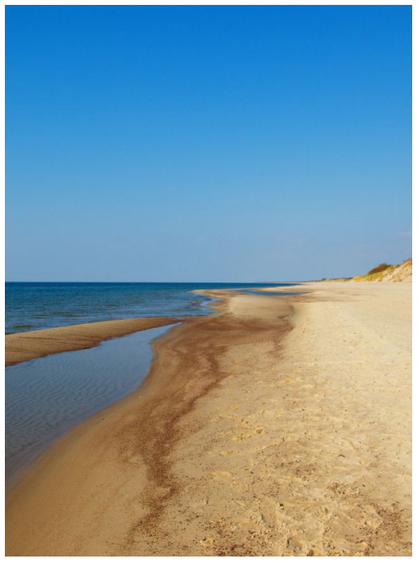
Principles

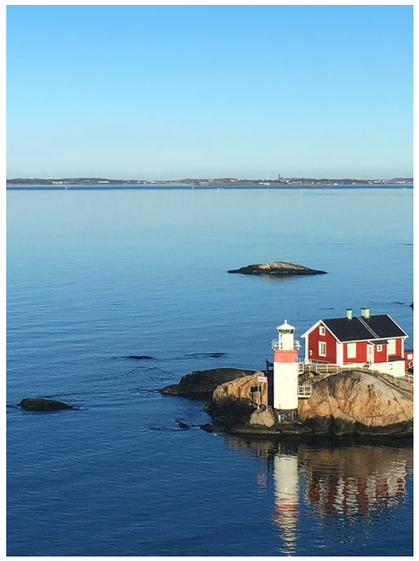
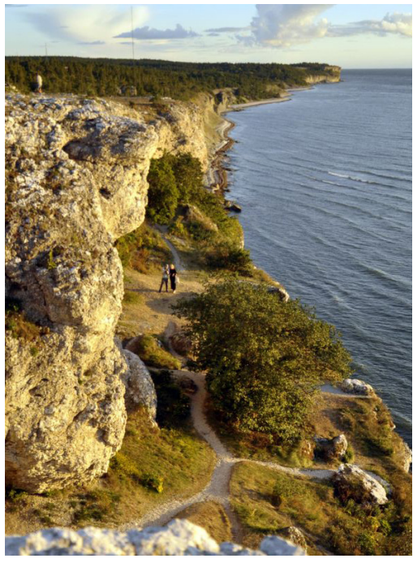
06

Baltic Sea

The design process generally begins by analyzing the urban context and the surrounding where the project will be placed. Since Regional station will be located in several different site, our surrounding are the entire countries, their tradition and culture.

During the interviews with the Stakeholders, one of the most poetic answer we have received when we have asked: “What you have in common with the other countries?” they have answered “the sea”.




Pictures

First row, from left:
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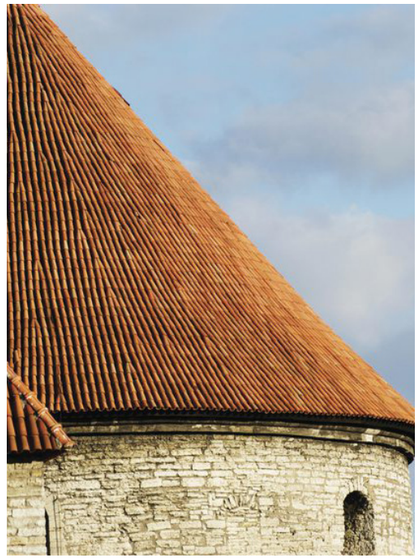
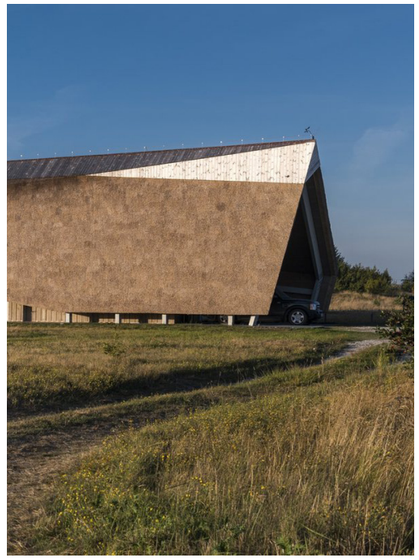
Principles

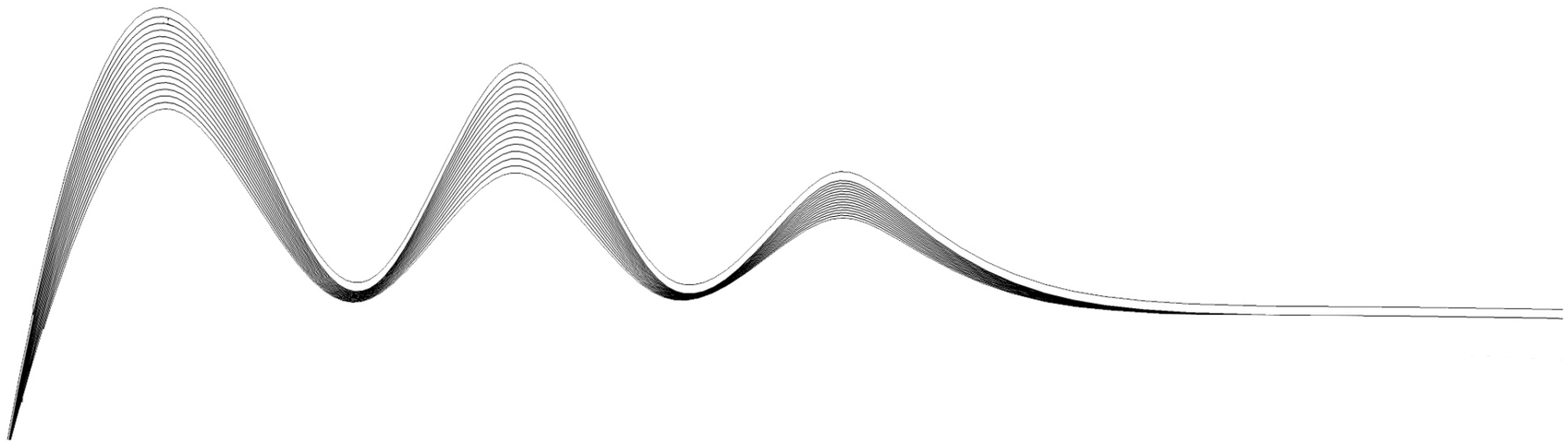
06

Traditional House

Given the dense woodland nature of the Baltic countries, much of traditional architecture centres around timber. For centuries was the material for houses and villages as a natural resource.
These structures are very simple with some unique architectural details such as the iconic forms of the gabled roofs.
The architecture of wooden buildings was expressed in the construction silhouette, roof constitution, also in the forms and the décor of openings and small details.
The roof took an important place in construction. The proportions between the building's walls and the roof height are very important. Traditionally, the roof takes an exceptional place in building construction and its construction has been allocated about two-thirds of the total building height.
Buildings were either covered by a tent roof, a double pitch roof, or a double pitch roof with hip ends.







Pictures
From left:
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Image 3 - *Credits: Juozas Kamenskas*
Image 4 - *Credits: SBS Enginering*

Principles

06

Standardization

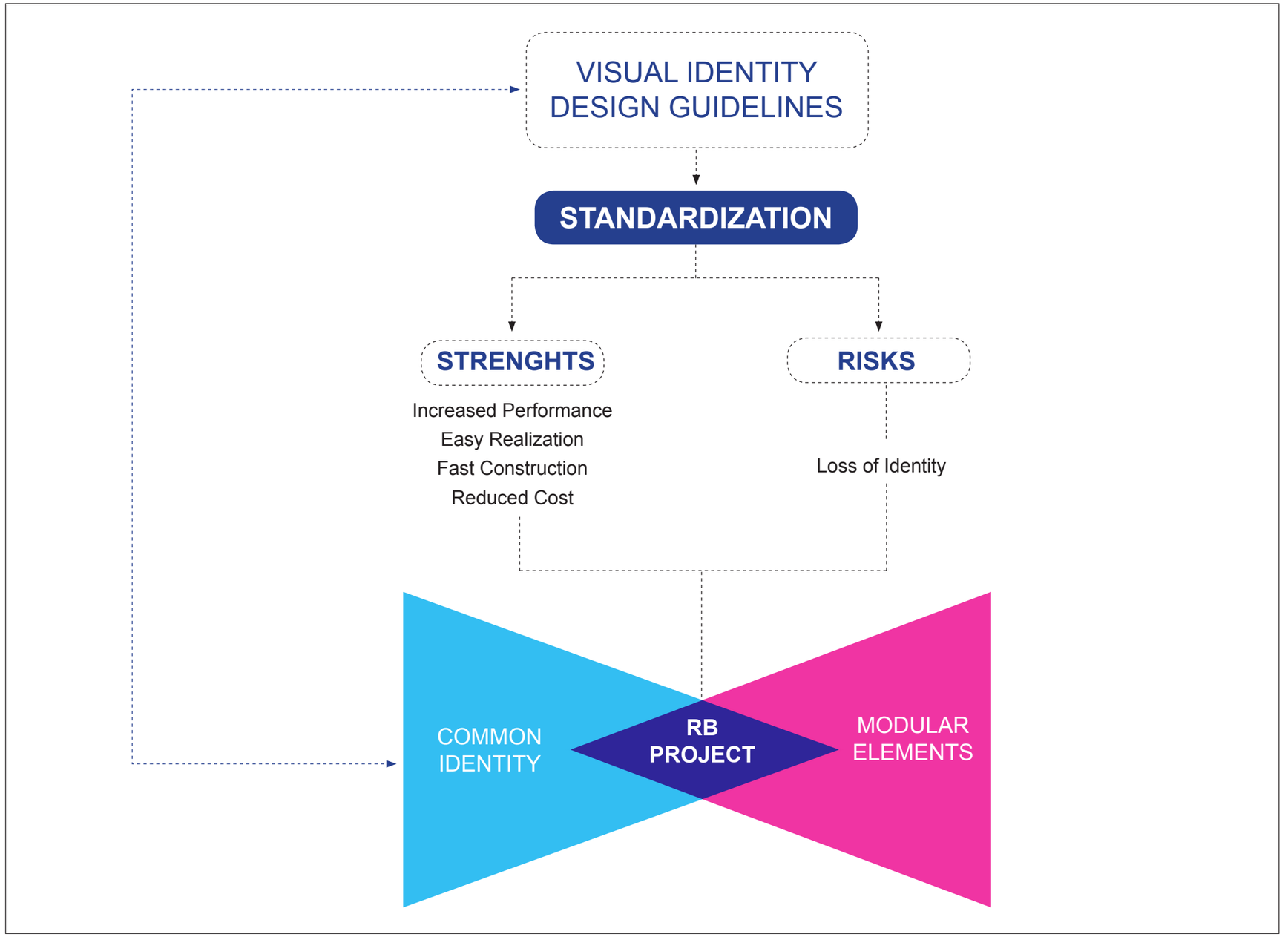
The Architectural, Landscaping and Visual Identity Design Guidelines manual is a set of rules, parameters and requirements leading the development of a project. It defines the Architectural, Landscape and Visual Identity concept of all the elements composing the RB project.

During the design phase it's important to have guidelines in order to standardize the elements all along the rail line and at the same time make them recognizable.

One of the most important principles of the Architectural, Landscaping and Visual Identity Design Guidelines is standardization and this implies:

- Increased performance
- Easy realization
- Fast construction
- Reduced costs

The risk of standardization is the loss of identity so Architectural, Landscaping and Visual Identity Design Guidelines provide indications regardin a common Identity of all the Rail Baltica elements to ensure the recognazibility.



Principles

06

Identity

The understanding of how to treat the “identity” of Rail Baltica is one of the main challenge of the project. As in every big project, also Rail Baltica Rail has different level of identity.
From the beginning of the project it became clear that every topic of the design must reflect these different levels of identity.
Each country expects different solutions when the project will cross its territory. It must be clear that each element has to have the “Rail Baltica touch” and at the same time has to respect the environment which is different in each Baltic country.

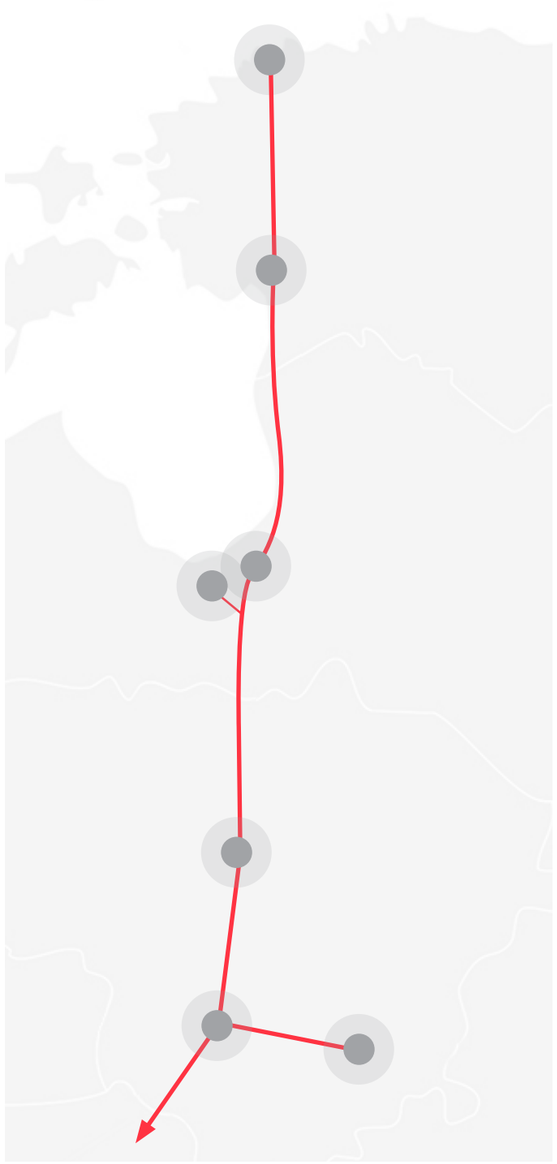
One of the main aims of the design of the Rail Baltica project is to manage each designed element according to an identity scale.
From the concept of the station to the acoustic barrier, each element must be recognizable as part of the Rail Baltica project and at the same time has to reflect the identity of their own country.

People expectation is to have a “unique project” but at the same time characterizing each country.
Although there are many common elements in the three countries history and culture, the national identity is deeply felt as one of themain topic in the Baltic countries.

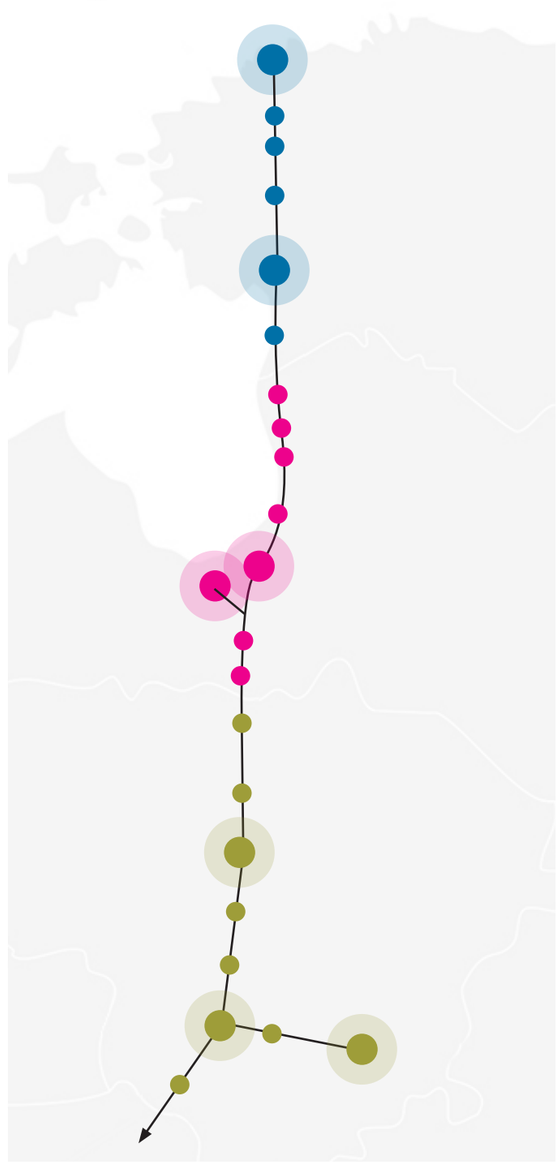
The identity approach can be sumamrised by three main categories which relate to a Scale of Identity:

- Network Identity
- Country Identity
- Regional Identity

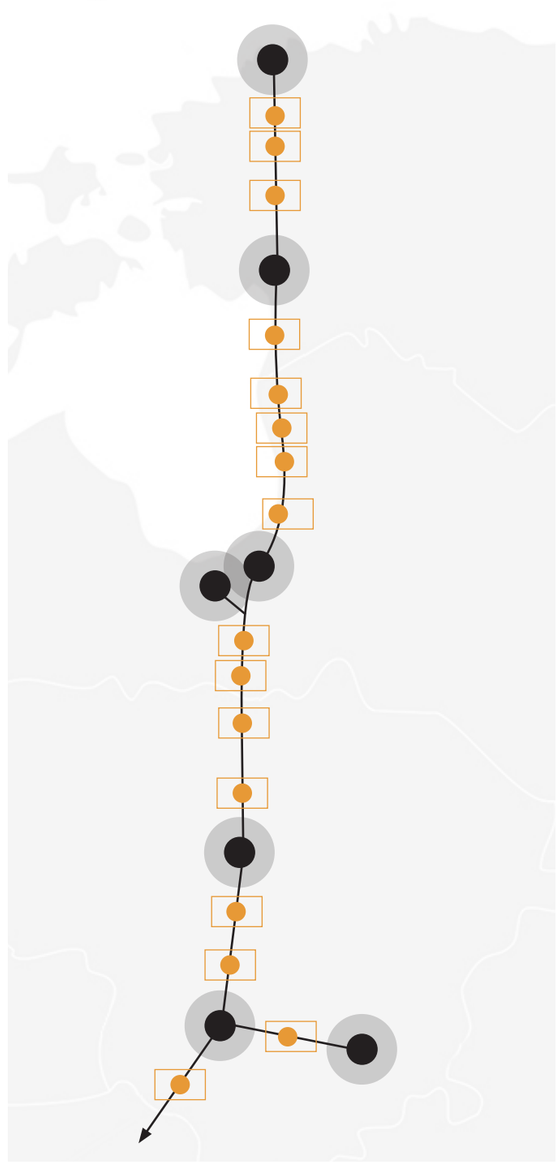
NETWORK IDENTITY
THE RAIL BALTICA TOUCH



COUNTRY IDENTITY
THE NATIONAL TRADITIONS



REGIONAL IDENTITY
THE LOCAL BELONGING



Principles

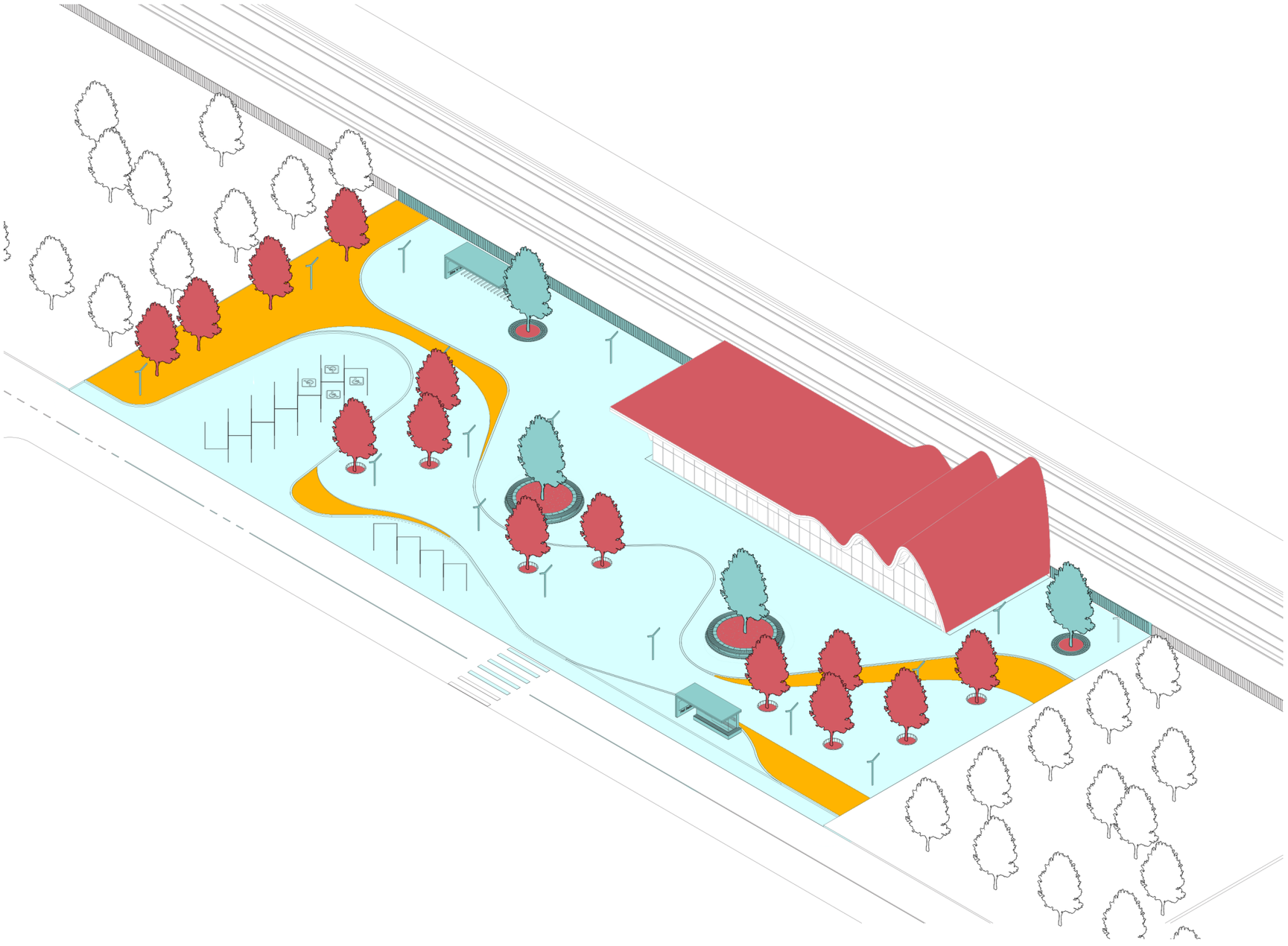
06

Identity

Network Identity: The Rail Baltica Touch
One of the focal points of the design is that this infrastructure must be recognizable in its entirety. The "Rail Baltica touch" must be visible in all the elements of the track, both from the passenger's point of view and from the external point of view. The design of the elements must be standardize on the network and applied to the different elements.

Country Identity: The National Traditions
The cultures and identities of the three Baltic countries have points in common: they share the same history, face the same sea and are located in similar natural environments. Despite this, the Baltic cultures also have many peculiarities that need to be taken into account by differentiating and enhancing them in each country.The same elements that characterize the identity of the network will have to have specific variations according to the country such as materials or colours.

Regional Identity: The Local Belonging
Culture and traditions of each of the three Baltic countries vary widely between their regions. Valuing local identities is therefore of fundamental importance, both for the concerned communities and for their integration. Especially in regional stations, spaces or elements shall be designed to show the local culture of a particular region, enhancing and increasing its awareness first on a national and then on an international level.



Network Identity

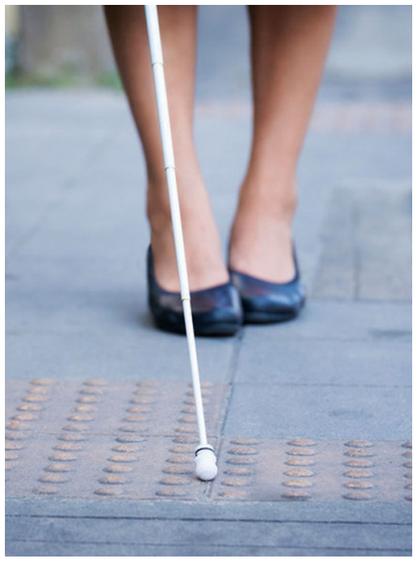
Country Identity

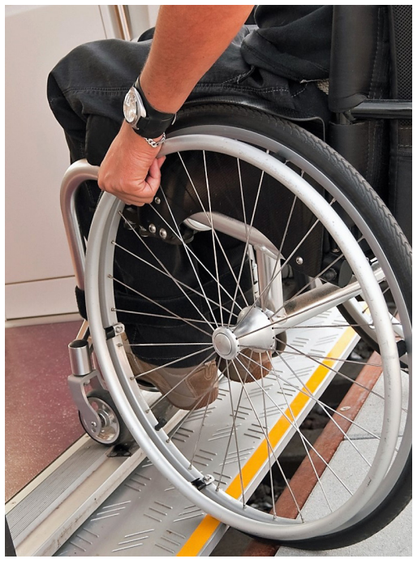
Regional Identity

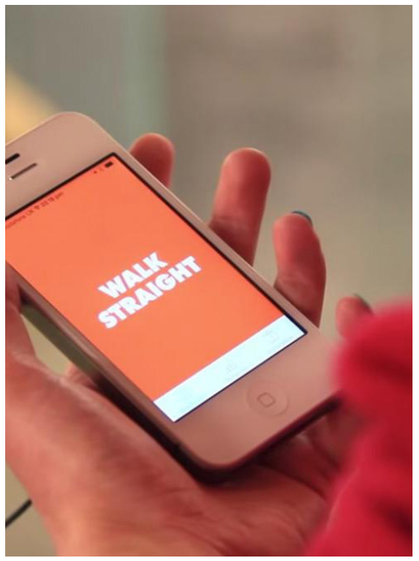
Principles

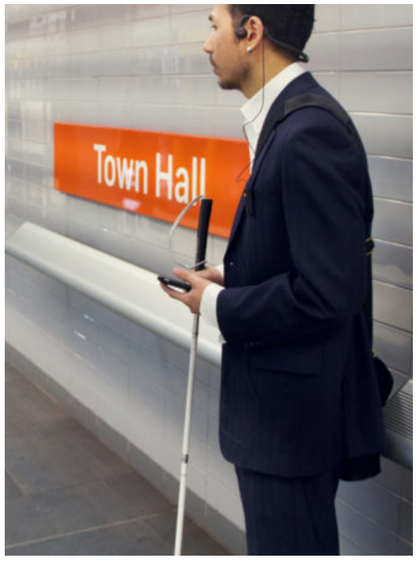
Accessibility

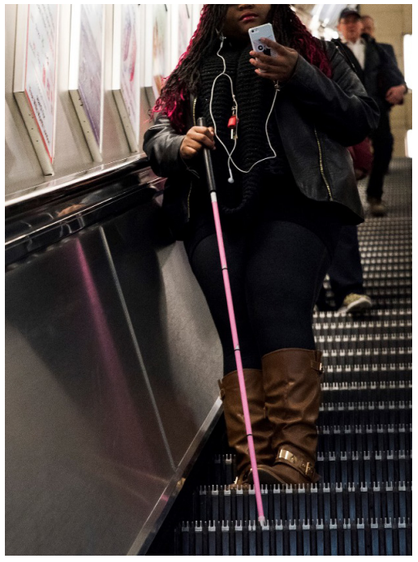
The concept of accessibility has a broad and general meaning. Making public transport accessible entails an approach that both deals with issues on an overall planning level to locate a station correctly and operate it effectively, and on a detailed level to design a station environment so that everyone can get around.
Following regulatory documents on accessibility for individuals with disabilities is a self-evident requirement.
In the planning work, however, consideration must be given to how a station facility as a whole integrates with, and connects to the surrounding environment. In this way, stations and public transport truly become accessible, reachable and useful to all.
In order to make it accessible and reachable in a broad sense, a station should be designed so that it is usable for all. Regulations and guidelines are found in both national and EU directives.
For people with disabilities, a well thought-out, integrated environment with few obstacles to ease and independence of movement in the environment is crucial. It must be possible to use the environment easily. In addition to creating an integrated environment, stations and transfer points in their basic functions, construction and design should comply with the requirements and regulations regarding disabilities that society imposes on a station's function and physical design.











Pictures
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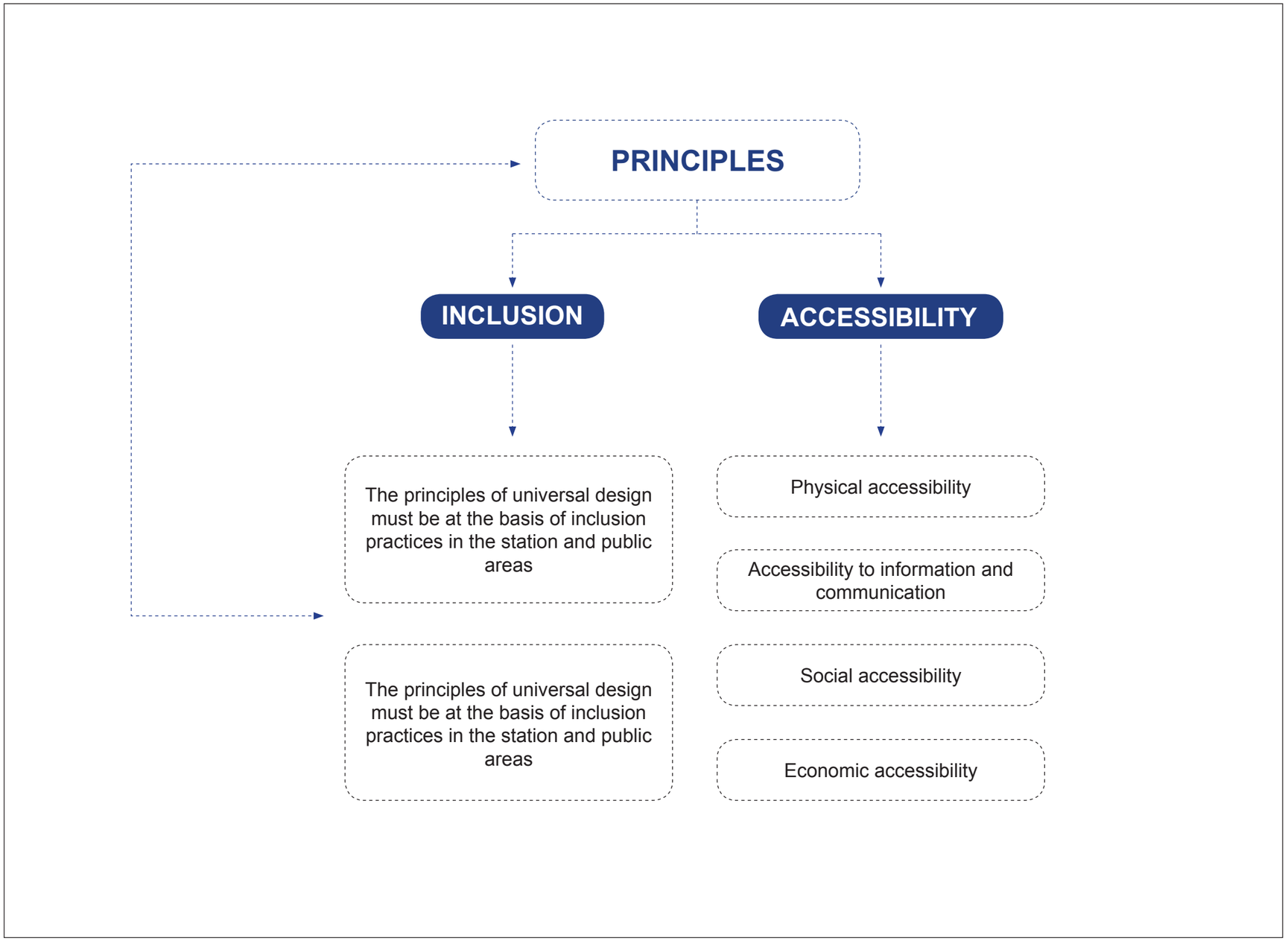
Image 7 - *Credits: Wayfindr*
Image 8 - *Credits: wallsviews.co*

Principles

06

Accessibility



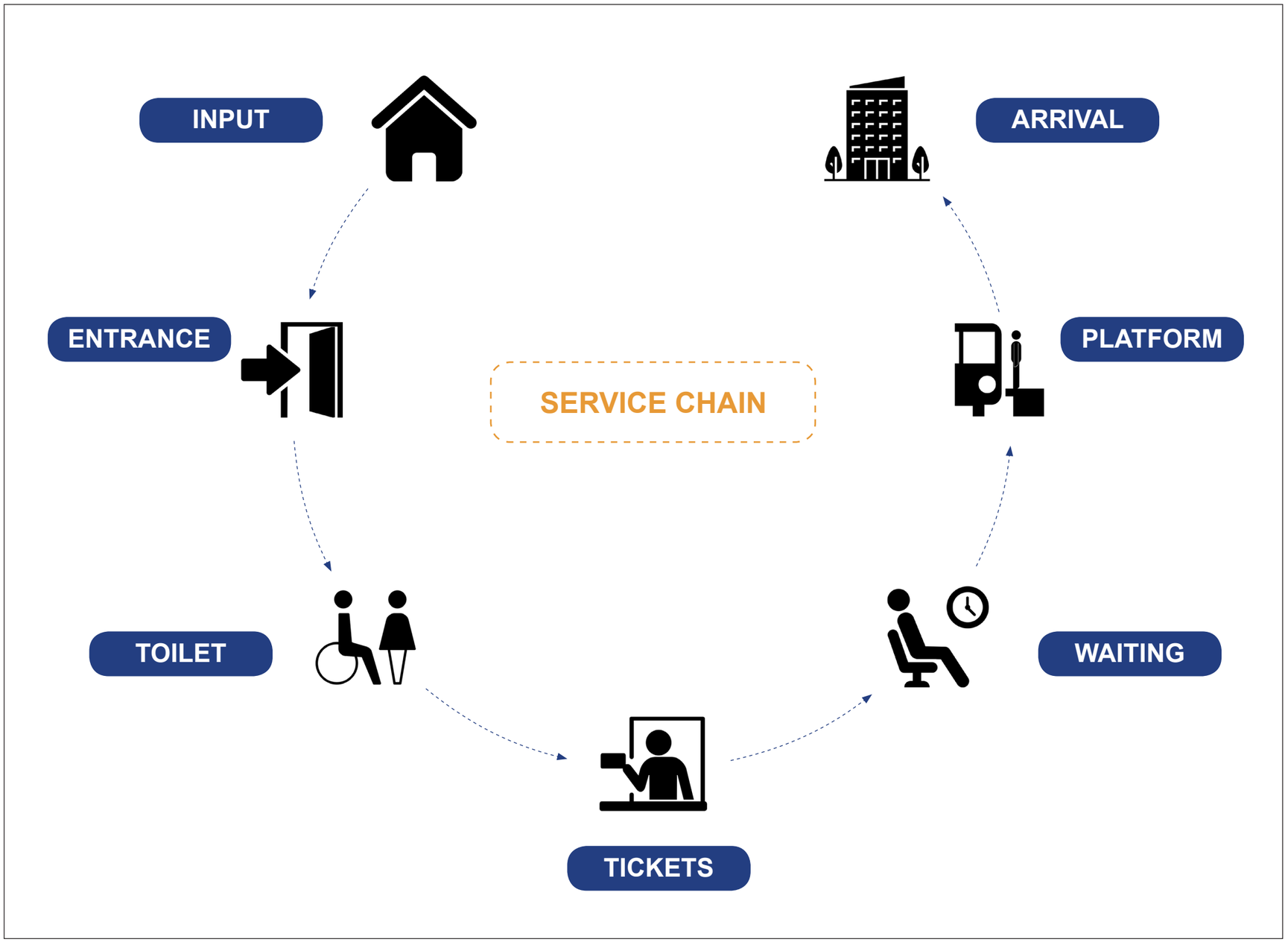
Principles

06

Accessibility

In order to verify if the accessibity has been ensured during the design process, designers must to take into account this scheme.

In the scheme are illustrate all the important aspect for a passenger during the journey from the input to the arrival point.



Principles

06

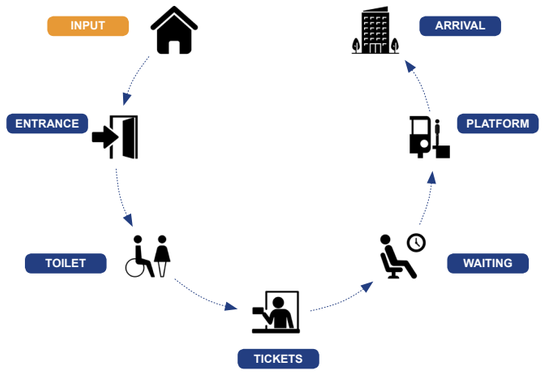
Accessibility

ACCESSIBILITY / SERVICE CHAIN	PHYSICAL ACCESSIBILITY	ACCESSIBILITY TO INFORMATION AND COMMUNICATION	SOCIAL ACCESSIBILITY	ECONOMIC ACCESSIBILITY
INPUT	-	X	X	X
ARRIVAL / ENTRANCE	X	X	X	-
TOILET	X	X	-	-
TICKETS	X	X	X	X
WAITING	X	X	X	-
PLATFORM	X	X	-	-
ARRIVAL	X	X	X	-

Principles

06

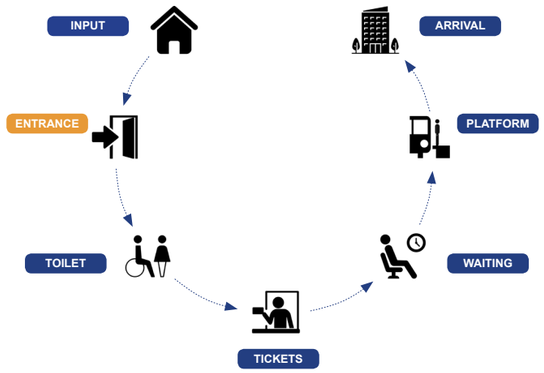
Accessibility



	PHYSICAL ACCESSIBILITY	ACCESSIBILITY TO INFORMATION AND COMMUNICATION	SOCIAL ACCESSIBILITY	ECONOMIC ACCESSIBILITY
INPUT		• Web page with videos with sign language • Accessible printed or screens with informations • Information with simple language	• Collaboration with the PRM associations • School rules of inclusion	• Free access • Same prize for the same service

Principles

Accessibility

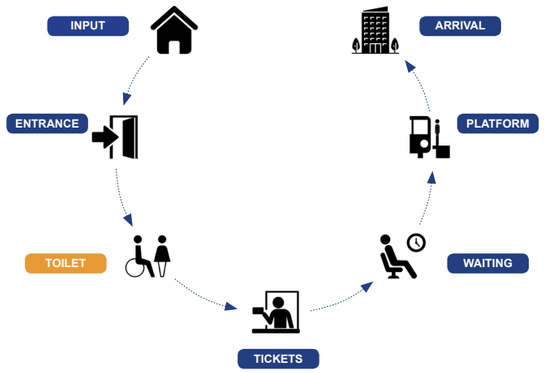


	PHYSICAL ACCESSIBILITY	ACCESSIBILITY TO INFORMATION AND COMMUNICATION	SOCIAL ACCESSIBILITY	ECONOMIC ACCESSIBILITY
ARRIVAL ENTRANCE	• Design compliant with EU and local regulations • Parking reserved near the building • Station achievable easily with local tranport • Tactile path • Provide ramps or elevators if necessary	• Clear and visible signage at the arrival • Accessible guidance system	• Staff with disabilities	• Free parking access • Same prize for the same service

Principles

06

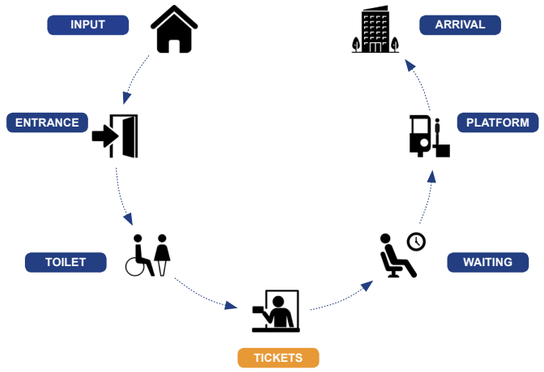
Accessibility



	PHYSICAL ACCESSIBILITY	ACCESSIBILITY TO INFORMATION AND COMMUNICATION	SOCIAL ACCESSIBILITY	ECONOMIC ACCESSIBILITY
TOILET	• Design compliant to EU and local regulations • Design of the toilets must respect minimum space, heigh and general dimensions	• Clear and visible signage for the toilets • Clear and visible signage for the toilets		• Free access • Same prize for the same service

Principles

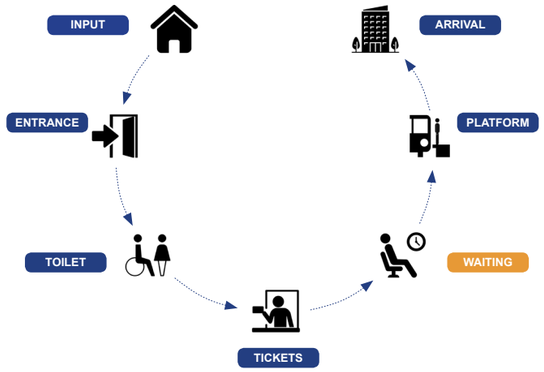
Accessibility



	PHYSICAL ACCESSIBILITY	ACCESSIBILITY TO INFORMATION AND COMMUNICATION	SOCIAL ACCESSIBILITY	ECONOMIC ACCESSIBILITY
TICKETS	• Design compliant to EU and local regulations • Design of the counter easily to be used • Tactile path	• Clear and visible signage for the toilets • Clear information on the prize of the tickets		• Free access • Same prize for the same service

Principles

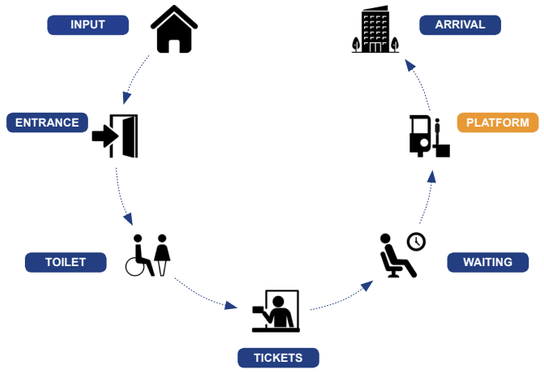
Accessibility



	PHYSICAL ACCESSIBILITY	ACCESSIBILITY TO INFORMATION AND COMMUNICATION	SOCIAL ACCESSIBILITY	ECONOMIC ACCESSIBILITY
WAITING	• Design compliant to EU and local regulations • Provide ramps or elevators if necessary • Provide clear wayfinding strategy • Same waiting area for people with or without disabilities • Pay attention to the placement of the elements	• Clear and assible system for orientation • Clear Signage and Wayfinding system	• Staff with disabilities • Trained staff • Allow guide dogs	

Principles

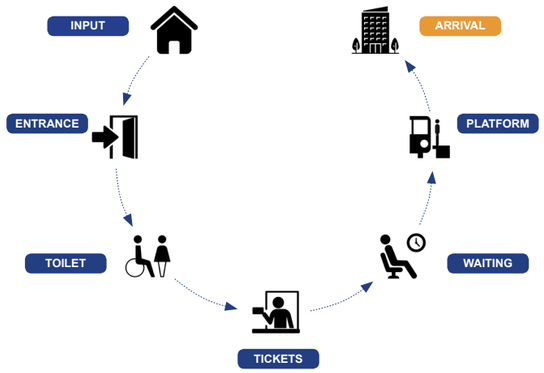
Accessibility



	PHYSICAL ACCESSIBILITY	ACCESSIBILITY TO INFORMATION AND COMMUNICATION	SOCIAL ACCESSIBILITY	ECONOMIC ACCESSIBILITY
PLATFORM	• Design compliant to EU and local regulations • Provide ramps or elevators if necessary • Provide clear wayfinding strategy • Provides confortable areas to wait also on the platform • Tactile path	• Clear and assible system for orientation • Clear Signage and Wayfinding system	• Staff with disabilities • Trained staff • Allow guide dogs	

Principles

Accessibility

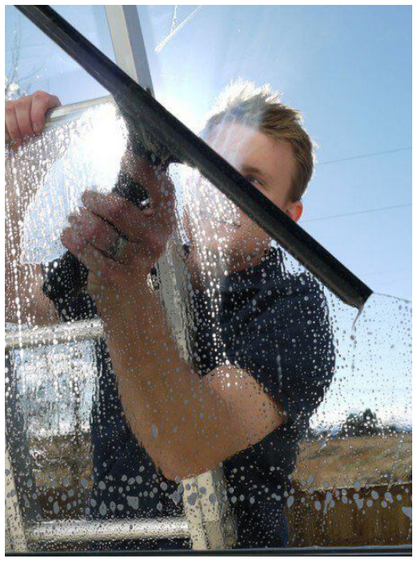


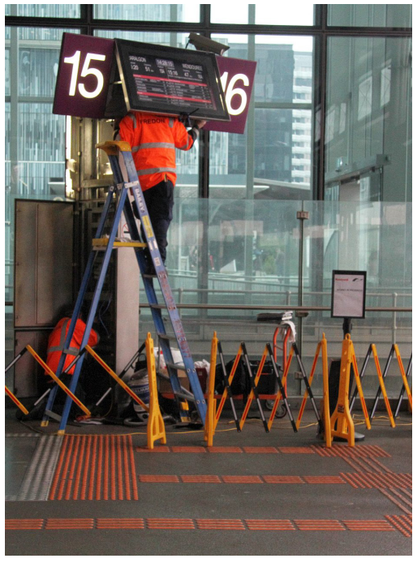
	PHYSICAL ACCESSIBILITY	ACCESSIBILITY TO INFORMATION AND COMMUNICATION	SOCIAL ACCESSIBILITY	ECONOMIC ACCESSIBILITY
ARRIVAL	• Design compliant to EU and local regulations • System for making comments and reviews	• Compliance with quality systems • Trained staff • System for making comments and reviews	• Strategy for quality improvement	

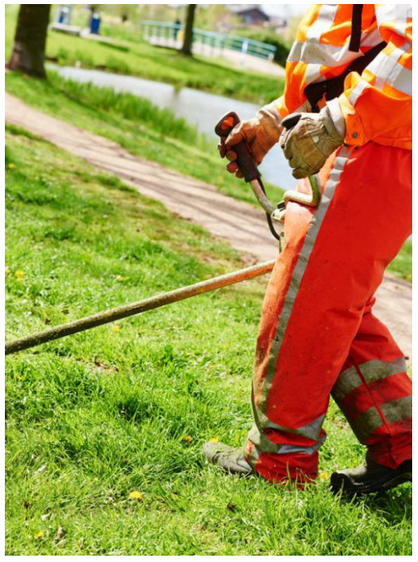
Principles

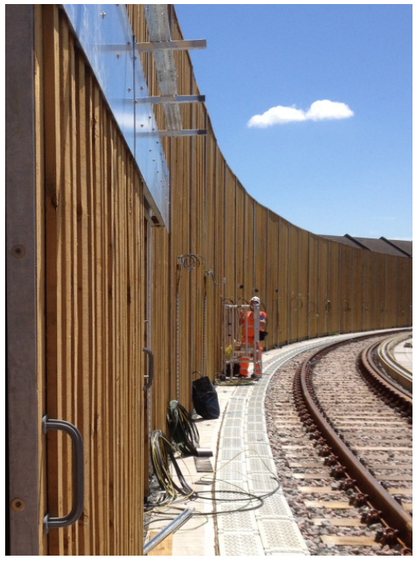
Maintenance

Designers must pay particular attention to the topic of maintenance. Design, material and technologies choices must be made considering what this means for the maintenance in terms of costs and environmental impact.









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Principles

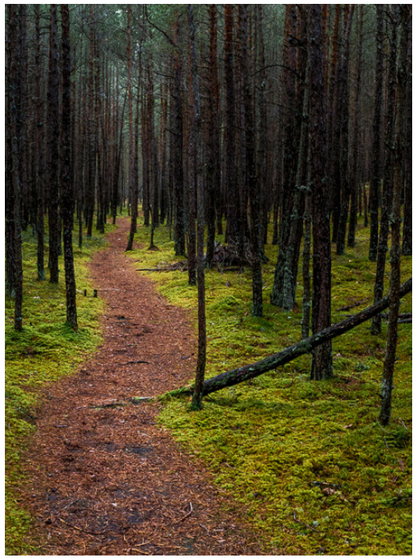
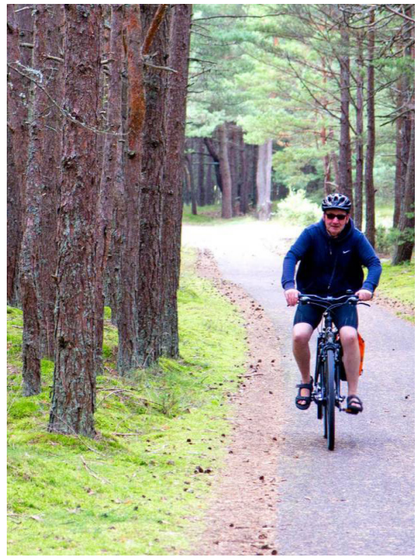
06

Environment

The 21st century Europe faces many challenges posed by global warming, pollution and other environmental issues. Rail Baltica will reduce the environmental footprint of human mobility in the Baltic States. Railway is the only major transport mode that does not depend almost entirely on fossil fuels and its share of Europe's transport energy consumption is less than 2% despite a market share of over 8.5%.
Furthermore, by inducing a modal shift from road to rail – both for freight and passenger traffic – Rail Baltica will promote a significant reduction of the monetary effects from climate change due to economies of scale, as well as helping slash road maintenance cost and reduce noise pollution.

Rail Baltica will be fully electrified so that any emissions will be avoided. The newest technologies and materials are going to be utilized in its construction.

The line is planned so that it avoids the Natura 2000 protected areas as far as possible and without significant impact on other environmentally sensitive protected areas.
Wherever necessary, noise protection barriers will be installed. Special animal passages will be built through the embankment.



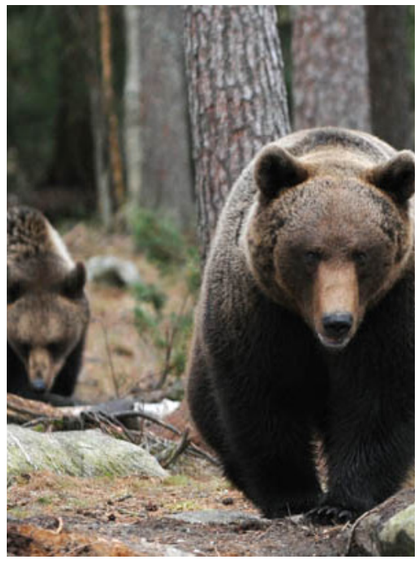
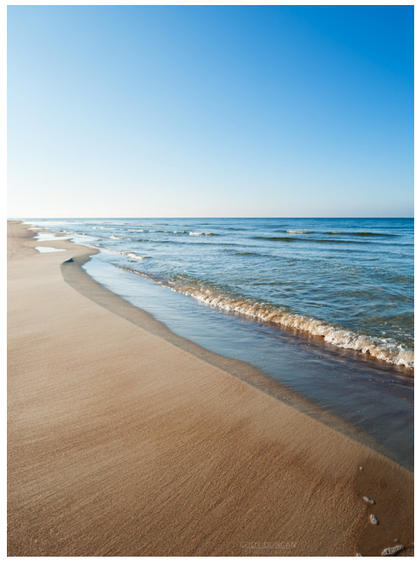
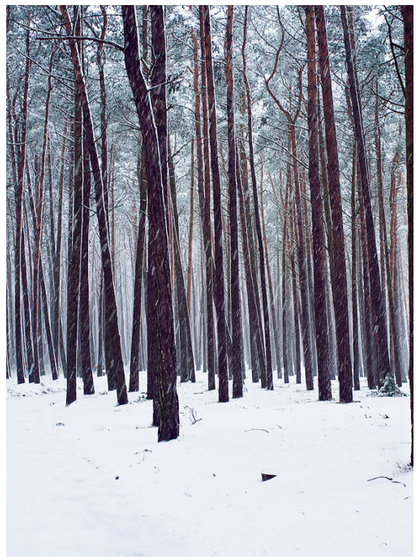




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Image 7 - *Credits: Cody Duncan*
Image 8 - *Credits: Anton Repponen*

Principles

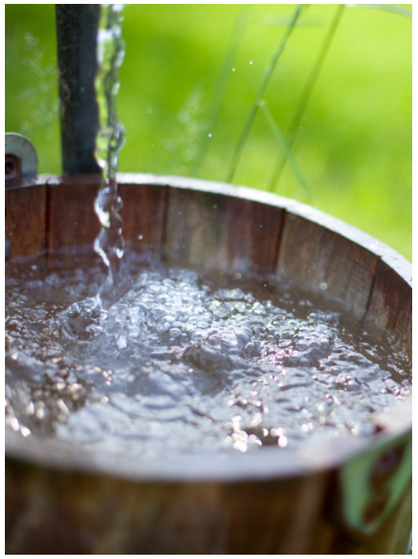
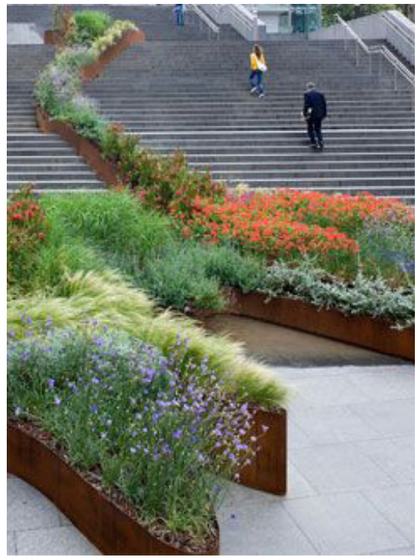
06

Zero Impact

Since from the 70s the awareness of the need to build energy-efficient buildings and infrastructures has been increasingly established.

There aren't univocal rules for the zero impact construction, but rather some principles to be respected to develop a project that is as efficient as possible.

Based on the environmental and climate context, the first step is always to seek passive solutions that minimize energy demand and therefore the need for intervention of mechanical systems.
For this reason it is fundamental to study aspects such as the shape, orientation and structures of the building, taking into consideration the radiation, winds, temperatures and shading, reuse of water, consider to use recycled materials and provide a good managment of the building or infrastructure also in terms of maintenace.





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Volume 0

ARCHITECTURAL, LANDSCAPING AND VISUAL IDENTITY DESIGN GUIDELINES FOR RAIL BALTICA

RB Rail AS