



Technology Engineering Consulting

**We turn bold ideas  
into meaningful  
projects**





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# History

2000 Est. Bioprojektas (Now TEC Industry)

Est. Tiltų Ekspertų Centras  
(Now TEC Infrastructure)

2003

Start of bridge  
design

2004

Start of biomass  
plan-design

2005

Start of railway  
design

2006

Start of technical  
supervision

2011

Start of heritage  
projects

2010

Start of CHP  
design

2009

Start of design of  
industrial facilities

2007

Start of  
export

2013

Start of waste  
to energy plant  
design

2012

Introduction for  
BIM in our daily  
activities

2014

Certification in  
nuclear energy  
facilities

2015

Start of  
design nuclear  
industry

TEC Infrastructure (renamed from Tiltų Ekspertų Centras)  
TEC Industry (renamed from Bioprojektas)  
TEC Consulting (establishment of the company)

2020

Export reaches  
30%

2017

Start of OIL and  
GAS design

2016

First awards for  
TEC's designs

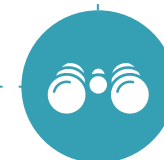
2015

Start of onshore  
wind farms



## Mission

We turn bold ideas into  
meaningful projects



## Vision

Engineers serving  
well-being of  
future societies



## Values

Expertise  
Cooperation  
Efficiency  
Improvement

## TEC Team



**17**  
Project managers



**15**  
Technical supervisors



**15**  
Process engineers



**4**  
HVAC engineers



**+**  
Others



**5**  
Architects



**6**  
Commissioning engineers



**25**  
Civil and structural engineers



**6**  
Electrical and automation engineers

## About TEC



**100+**  
Professionals



**800+**  
Projects experience



**6,7 mln. EUR**  
**2021**  
5 mln. EUR 2020



**ISO**  
9001  
14001  
45001



**500+**  
Happy customers and counting  
**78% NPS**



**17** Countries  
export:  
**2020 - 27 %**  
**2021 - 33 %**  
**2022 - 36 %**



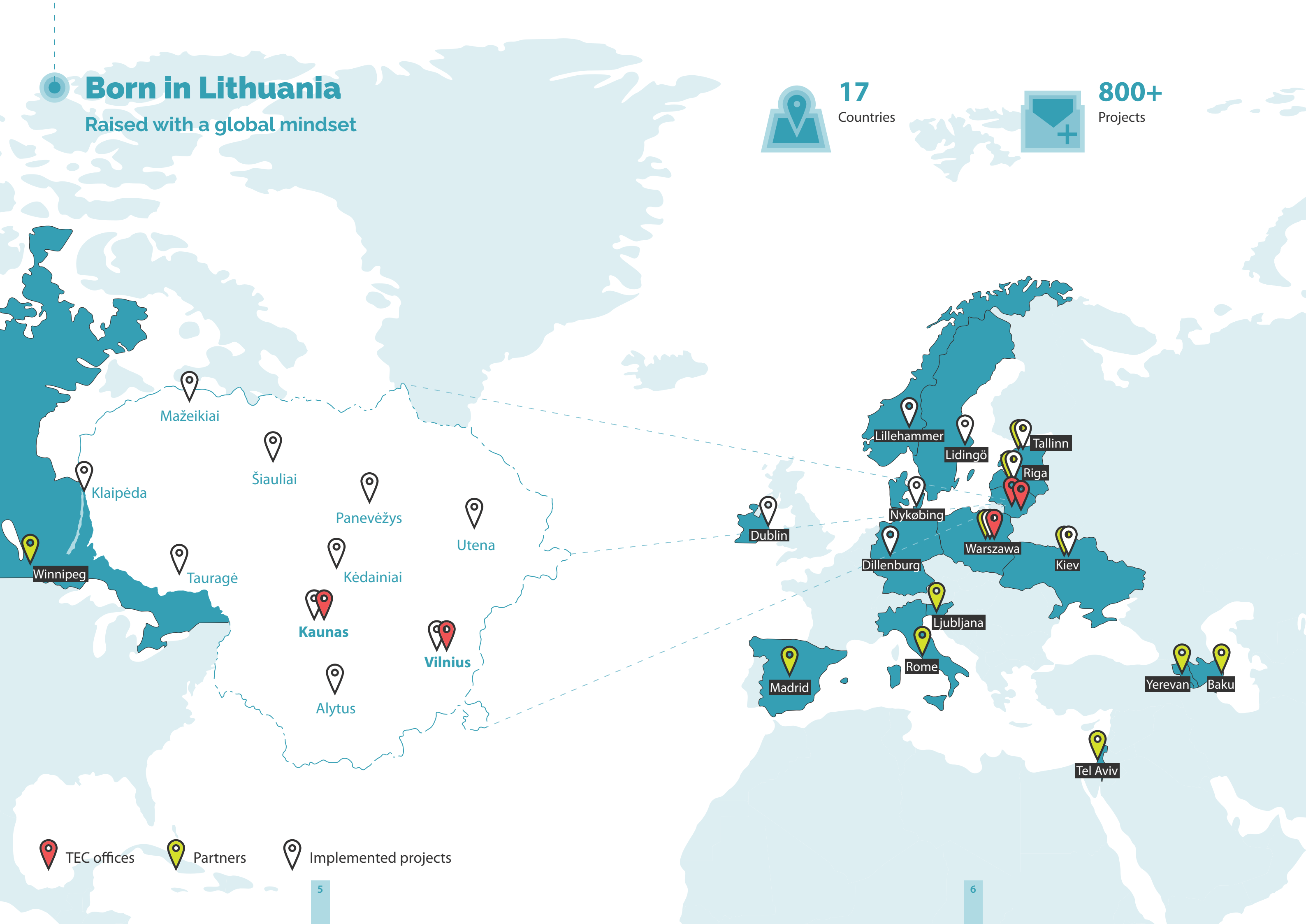
**Born in Lithuania**  
Raised with a global mindset



**17**  
Countries



**800+**  
Projects



# So, what do we do?

## Expertise and support for projects

### YOUR PROJECT

Environmental impact assessment  
Feasibility studies  
Engineering analysis  
Financial counseling  
Implementation modelling  
Due diligence  
Mediation and arbitration  
Legal advisors

Commissioning  
Lease agreement  
Decommissioning/reinstate landscape  
Compliance with operational permitting  
Performance assessment and optimize  
Connection agreement  
Technology updates and upgrades  
Operational agreement

### 1. DEVELOPMENT

### 2. DESIGN AND ENGINEERING

Pre-design solutions  
Concept design  
Process engineering  
Detail design  
HAZOP sessions and SIL verification  
BIM coordinator

### 3. CONSTRUCTION

Technical supervision  
Construction and design supervision  
FIDIC engineer services  
Construction management  
Construction permit procedure  
Tendering and management of contractors  
Execution risk management  
Health and safety coordinator services  
Schedule control management  
Budget control and management  
Documentation control and management  
Claim management  
Acceptance procedure management  
Risk management  
Quality assurance  
Tendering for materials and equipment  
Mediation

### 4. OPERATIONS

A-Z PROJECT IMPLEMENTATION

# So, what have we achieved?



# Infrastructure projects

With technical and economic know-how we have been a part of major improvements for efficient transportation and society well being. We deliver our design and project management services to all types of transport infrastructure:

- Roads and Highways

- Railway

- Bridges and other overpass structures

## Services we provide:

-  concept and detail design

-  project management

-  consulting

-  technical supervision





# Roads and highways

## Road A14 Vilnius-Utena

Lithuanian Road Administration

Lithuania

Sections 16,80–17,64 km and 20,84–21,50 km  
Total length – 25,217 km  
Road width – 39 m  
Number of lanes – 4  
Lane width – 3,5 m

### Services we had carried out:

👁️ construction technical supervision





# Roads and highways



## Panevėžys Bypass A17

Lithuanian Road Administration

Lithuania

Sections 10,53–18,8 km and 10,53–22,06 km  
Total length – 2,41 km  
Road width – 7 m  
Number of lanes – 2  
Lane width – 3,5 m

### Services we had carried out:

-  concept and detail design
-  design implementation supervision





# Bridges and other overpass structures

## Pedestrian bridge over the river Venta

Atamis, UAB

Kuršėnai, Lithuania

Type of structure – multi-span continuous girder

Material – steel

Length – 267,88 m

Width – 3 / 10 (v)

Services we had carried out:

 detail design





# Bridges and other overpass structures

## Pedestrian bridge over the river Nemuna



Kaunas City Municipality



Kaunas, Lithuania



Connecting Nemunas Island and King Mindaugas ave.

Type of structure – truss-arch / frame

Material – prestress concrete

Length – 73,42 m

Width – 6,2 m



### Services we had carried out:



concept and detail design



design implementation supervision











# Energy projects

Our highly qualified engineers and consultants work on complex projects changing the landscape of energy use and environment starting from design, project management to and construction supervision and commissioning:

- Process engineering
- Natural gas plants
- Biomass plants
- Combined heat and power plants
- Waste to energy plants
- Renewable energy
- Commissioning services

## Services we provide:

-  concept and detail design
-  project management
-  construction management

-  commissioning and operations
-  consulting
-  technical supervision





# Process engineering

## IDEX Taika cogeneration power plant

Idex Taikos elektrinė, UAB

Kaunas, Lithuania

Biomass steam boiler – 20 MW  
Turbo generator – 4,9 MW  
Fuel – wood chips

### Services we had carried out:

- project management
- design implementation supervision
- concept and detail design





# Natural gas plants

## Nordic Sugar Kėdainiai boiler house

Nordic Sugar Kėdainiai, AB

Kėdainiai, Lithuania

Four steam boilers at 25 tph,  $P = 10$ ,  $T = 190$  oC /

### Services we had carried out:

-  concept and detail design
-  EPCM project management
-  construction management
-  design implementation supervision and construction technical supervision
-  construction HSE coordination





# Biomass plants



## Oneks Invest biomass power plant

Oneks Invest, UAB

Biruliškių g. 6A, Kaunas, Lithuania

Thermal output of biomass boilers – 2 x 20 MW  
Two condensing economisers 2 x 4,75 MW  
Electrostatic presipitators  
40m height chimney  
1800 m DH network line ( Ø600)  
Fuel – wood chips and forest residue

### Services we had carried out:

-  concept and detail design
-  design implementation supervision





# Combined heat and power plants

## VÄO 2 CHP plant

Utilitas Tallinna Elektri jaam, OÜ

Tallinn, Estonia

Thermal power output of three steam boilers – 76,5 MW  
Turbo generator capacity – 21,4 MW  
Three electrostatic precipitators and three 5MW flue gas condensing economisers  
Fuel – wood chips and peat

### Services we had carried out:

- project management
- design implementation supervision
- concept and detail design
- commissioning and operations





# Waste to energy plants

## Kaunas waste to energy combined heat and power plant

Standardkessel Baumgarte, GmbH

Kaunas, Lithuania

Thermal power – 70 MW  
Turbo generator – 24 MW  
Fuel – municipal waste

Services we had carried out:

 commissioning and operations





# Renewable energy

## Ratipera Wind Farm



ABO Wind AG



Finlandia



Electrical capacity – 9 x 3 MW



Services we had carried out:



construction management



construction technical supervision





# Commissioning services

## Vilnius waste to energy combined heat and power plant

Budimex S. A.

Vilnius, Lithuania

Thermal power – 229 MW  
Turbo generator – 92 MW  
Fuel – municipal waste

### Services we had carried out:

commissioning and operations, guaranteed performance measurements









# Industry projects

We have gained 20 years experience in design and construction management of facilities that serve various industries including:

- Oil and gas
- Storage and logistics
- Manufacturing industry
- Pharmaceuticals and biotechnology
- Nuclear
- Aviation industry

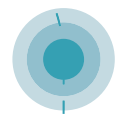
## Services we provide:

-  concept and detail design
-  project management
-  construction management

-  commissioning and operations
-  consulting
-  technical supervision







# Oil & Gas

## Klaipėdos Nafta dark oil product offloading ramp



Klaipėdos nafta, AB



Klaipėda, Lithuania



Railway lines – 2  
Simultaneous loading of tanks – 32  
Length of gantry – 250 m



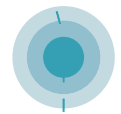
Services we had carried out:



concept and detail design







# Oil & Gas

## ORLEN Lietuva bitumen offloading system



ORLEN Lietuva, AB



Mažeikiai, Lithuania



Construction, reconstruction or demolition of:

- Railway infrastructure, loading gantries
- Oil product reservoirs and service areas
- Pumps, compressors, scales, related E/A systems
- Firefigting system



### Services we had carried out:



concept design  
HAZOP analysis  
tender documentation preparation





# Storage and logistics

## JW Trade storage warehouse with a new office

JW Trade, UAB

Šiauliai, Lithuania

Warehouse area – 2000 m<sup>2</sup>  
Height of the building – 11,66 m  
Storage height – 8,7 m  
Area of administrative premises – 400 m<sup>2</sup>

### Services we had carried out:

-  EPCM project implementation
-  construction technical supervision





# Manufacturing industry




## Hemp fiber production plant

Naturalus Pluoštas, UAB

Kėdainiai, Lithuania

Products – hemp fiber, shives, biomass pellets  
Production and storage area – 7000 m<sup>2</sup>  
Processing capacity – 30,000 tons/year

### Services we provide:

-  concept and detail design
-  project management
-  design implementation supervision





# Manufacturing industry



## Continental Automotive Lithuania factory expansion

Continental Automotive Lithuania, UAB

Kaunas, Lithuania

Existing factory expansion – 10 000 m<sup>2</sup>  
Office and warehouse expansion – 5000 m<sup>2</sup>  
Height of the building – 17,1 m  
International standards – LEED Gold, FM Global  
Special environment – dust, moisture, temperature control

### Services we had carried out:

-  construction management
-  construction technical supervision





# Pharmaceuticals and biotechnology

## New biotech laboratory

Sanobiotec R&D, UAB




Vilnius, Lithuania

Area of laboratory – 245 m<sup>2</sup>

Office area – 270 m<sup>2</sup>

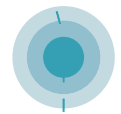
Clean rooms, high hygiene conditions,  
integration into an existing building

### Services we had carried out:

-  design implementation supervision
-  project management
-  construction technical supervision







# Nuclear

## Nuclear waste reprocessing B1 and B2 at Ignalina Nuclear Plant



Ignalina nuclear power plant



Visaginas, Lithuania



INPP storage & waste treatment facilities B1 & B2.  
Separate parts of design



### Services we had carried out:



concept and detail design



design implementation supervision





# Aviation industry

## Twin bay aircraft painting hangar

Maas Aviation, UAB

Kaunas, Lithuania



Building area – 4735 m<sup>2</sup>

Two floors

Span of painting bay – 42 m

Specialised air supply system

### Services we had carried out:

-  concept and detail design
-  design implementation supervision and construction technical supervision
-  project management

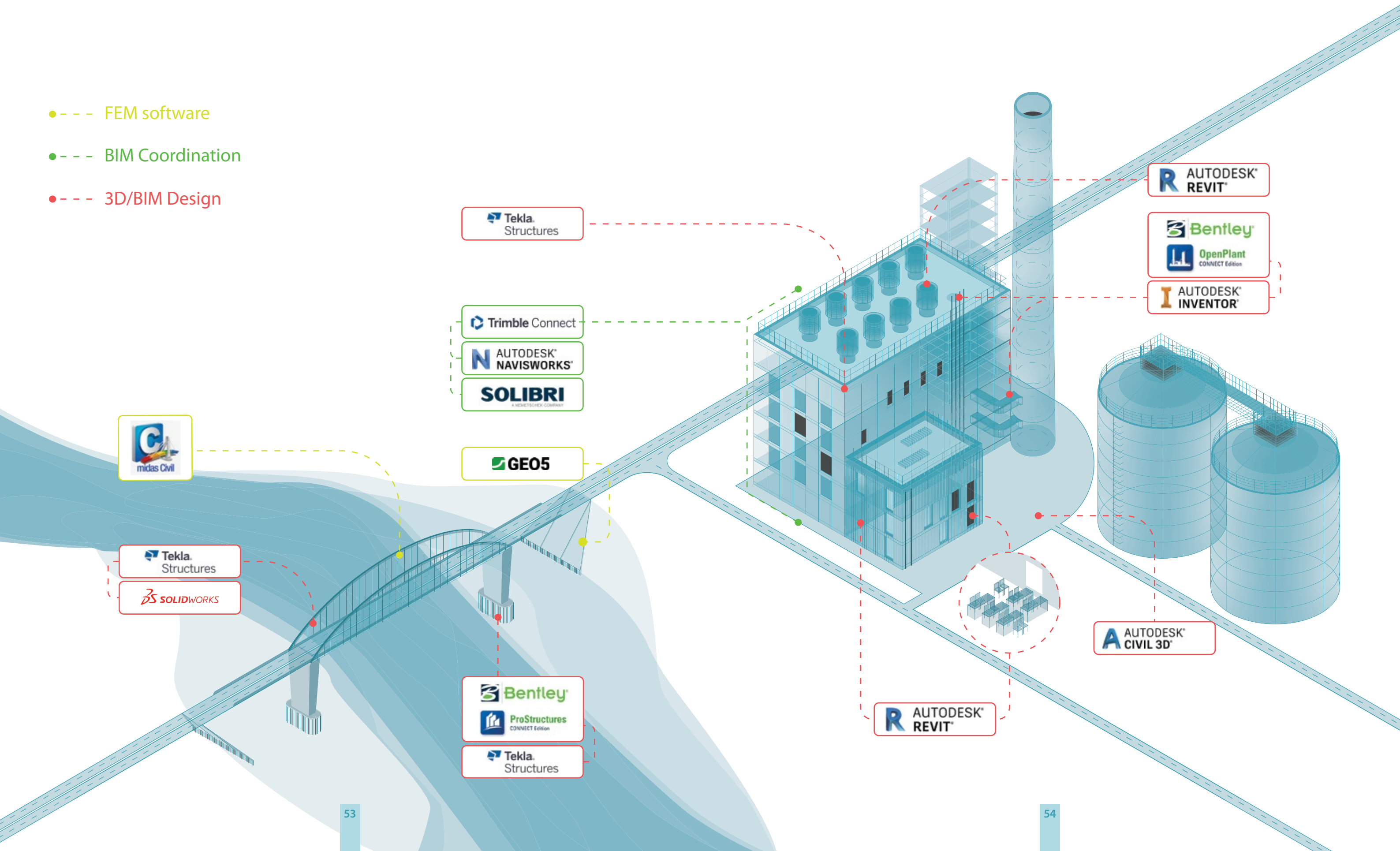




# Delivering innovation

Powered with innovative tools

- - - - FEM software
- - - - BIM Coordination
- - - - 3D/BIM Design





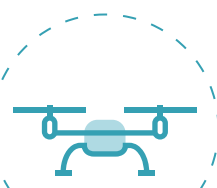
# Delivering innovation

Powered with BIM

## Creating tangible benefits for Contractor:

- resource optimization
- time optimisation
- minimised waste of construction materials
- faster tendering
- better quality & warranty control

## BIM in TEC activities:



Laser scanning, drones and photogrammetric software are used to measure and digitise existing site conditions



3D Models are developed based on criteria that is important to the implementation of the building's design



Quantity take-offs are generated directly from the prepared 3D models



Common Data Environment (CDE) is used to collect, store, manage and organize all data and information related to the project



As-built models are developed after construction by physically measuring the existing facility



3D coordination software is used to determine identify 3D geometric conflicts and to eliminate it before construction

# We work with

Continental

MAAS  
aviation

budimex

Enefit

FEGDA

ROQUETTE | amilina

KAUNO  
ENERGIJA

Kietaviškis  
NATŪRALIAI ŠVIEŽIOS DARŽOVĖS

Nordic Sugar  
Member of Nordzucker Group

JFE Engineering Group  
Standardkessel  
JFE Baumgarte

KAUNO  
TILTAI

VILNIAUS  
BALDAI

eer

PORT OF KLAIPĖDA

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