

# EIA in industrial sector – experience from Czech Republic



ECRAN Regional Training Workshop on SEA/EIA in industrial sector  
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This Project is funded by the European Union



Project implemented by Human Dynamics Consortium

## Topics of the presentation

- Legal background
- Key issues of the EIA procedure
- Key issues usually addressed in the EIAs related to industrial projects
- Real examples illustrating the key issues addressed

## Legal background

- Act 100/2001 Coll., on Environmental Impact Assessment, as amended (Act on EIA) - fully harmonised with Directive 2011/92/EU (EIA Directive) as amended
- Annex 1 to the Act on EIA – covers all industrial projects presented in Annex I and Annex II to the EIA Directive. Projects from Annex I are presented as Category I projects and projects from Annex II are presented as Category II projects. The list of projects is extended.
- The Annex 1 to the Act on EIA also specifies for which projects the Ministry of Environment will be the competent authority and for which the Regional Offices will be the competent authority



## Key issues of the EIA procedure

- **Categories of projects subject to the Act on EIA**
  - Projects always subject to an assessment - Annex 1, Category I
  - Projects subject to screening and scoping (determination whether the project shall be subject to an assessment) – Annex 1, Category II
  - Projects, which do not reach given limit value - Annex 1, Category II
- **EIA documents**
  - Notification (simple fact finding study) concerning projects from Annex 1, Category II, which do not reach given limit value (Annex 3a to the Act on EIA) – if the limit value is set
  - Notification (fact finding study) concerning projects from Annex 1, Category II, reaching given limit value (Annex 3a to the Act on EIA)
  - Environmental Impact Assessment concerning Annex 1, Category I projects and Annex 1, Category II projects if determined so in screening and scoping procedure (Annex 4 to the Act on EIA)
  - Expert opinion related to Environmental Impact Assessment



## Key issues of the EIA procedure

- **Expertise**
  - Only the expert possessing authorization issued by the MoE are allowed to carry out Environmental Impact Statement (team leader, responsible person)
  - Only the expert possessing authorization issued by the MoE are allowed to carry out dispersion studies (ambient air quality studies)
  - Only the expert possessing authorization issued by the MoE are allowed to carry assessments of impacts on Natura 2000 sites
  - Only the expert possessing authorization issued by the Ministry of Health are allowed to carry assessments of impacts on public health



## Key issues of the EIA procedure

- **Main steps in the EIA process**

### **Projects always subject to an assessment - Annex 1, Category I**

- **Environmental Impact Assessment (Annex 4 to the Act on EIA)**
- **Obligatory dissemination of the Environmental Impact Assessment to public and authorities, collection of comments, complaints, etc.**
- **Expert opinion related to Environmental Impact Assessment**
- **Obligatory dissemination of the Expert Opinion to public and authorities, collection of comments, complaints, etc.**
- **Obligatory public hearing**
- **Statement of the Competent Authority**



## Key issues of the EIA procedure

### Projects subject to screening and scoping – Annex 1, Category II

- Notification (Annex 3 to the Act on EIA)
- Obligatory dissemination of the Notification to public and authorities, collection of comments, complaints, etc.
- Decision of the competent authority if Environmental Impact Assessment will be elaborated or not
- If the competent authority decides that that Environmental Impact Assessment is not needed, the procedure terminates
- If the competent authority decides that Environmental Impact Assessment will be elaborated, the procedure continues in the same way as in the case of projects always subject to an assessment – see previous slide

### Projects subject to screening and scoping which do not reach given limit value

- Notification (Annex 3a) is submitted to the competent authority
- Decision of the competent authority if Notification according to Annex 3 will be elaborated or not
- The competent authority can ask relevant authorities for opinion. Public is not involved in this case.



## Key issues usually addressed in EIAs related to industrial projects

- **Compliance with Land Use Plan**
- **Natura 2000**
- **Traffic**
- **Noise**
- **Air quality**
- **Public health**
- **Soil**
- **Surface water and groundwater**
- **Flora and fauna**
- **Wastes**
- **Potential risks related to used substances and technologies**
- **Natural resources**



- **Compliance with Land Use Plan**

Statement from the respective authority concerning compliance of the project with Land Use Plan (obligatory)

- **Natura 2000**

Statement from the respective authority concerning potential impacts on Natura 2000 sites (optional)

- **Traffic (traffic study)**

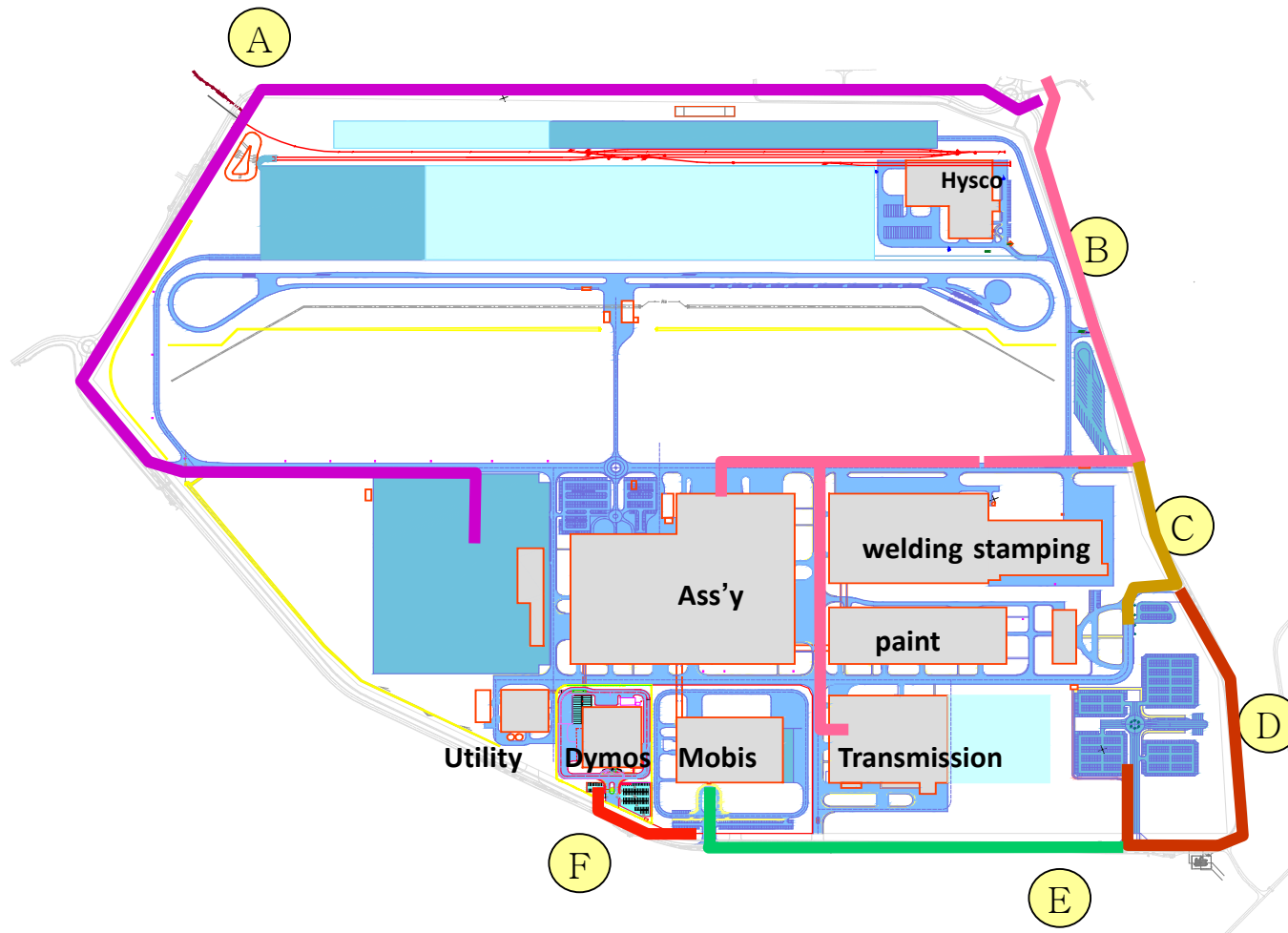
- Current traffic
- Future traffic without implementation of the project
- Future traffic after implementation of the project

- **Noise (noise study)**

- Current acoustic situation in the area of interest (noise measurements, noise modelling, sometimes noise mapping - ukázka)
- Future acoustic situation without implementation of the project
- Future acoustic situation after implementation of the project (mobile sources and stationary sources separately)





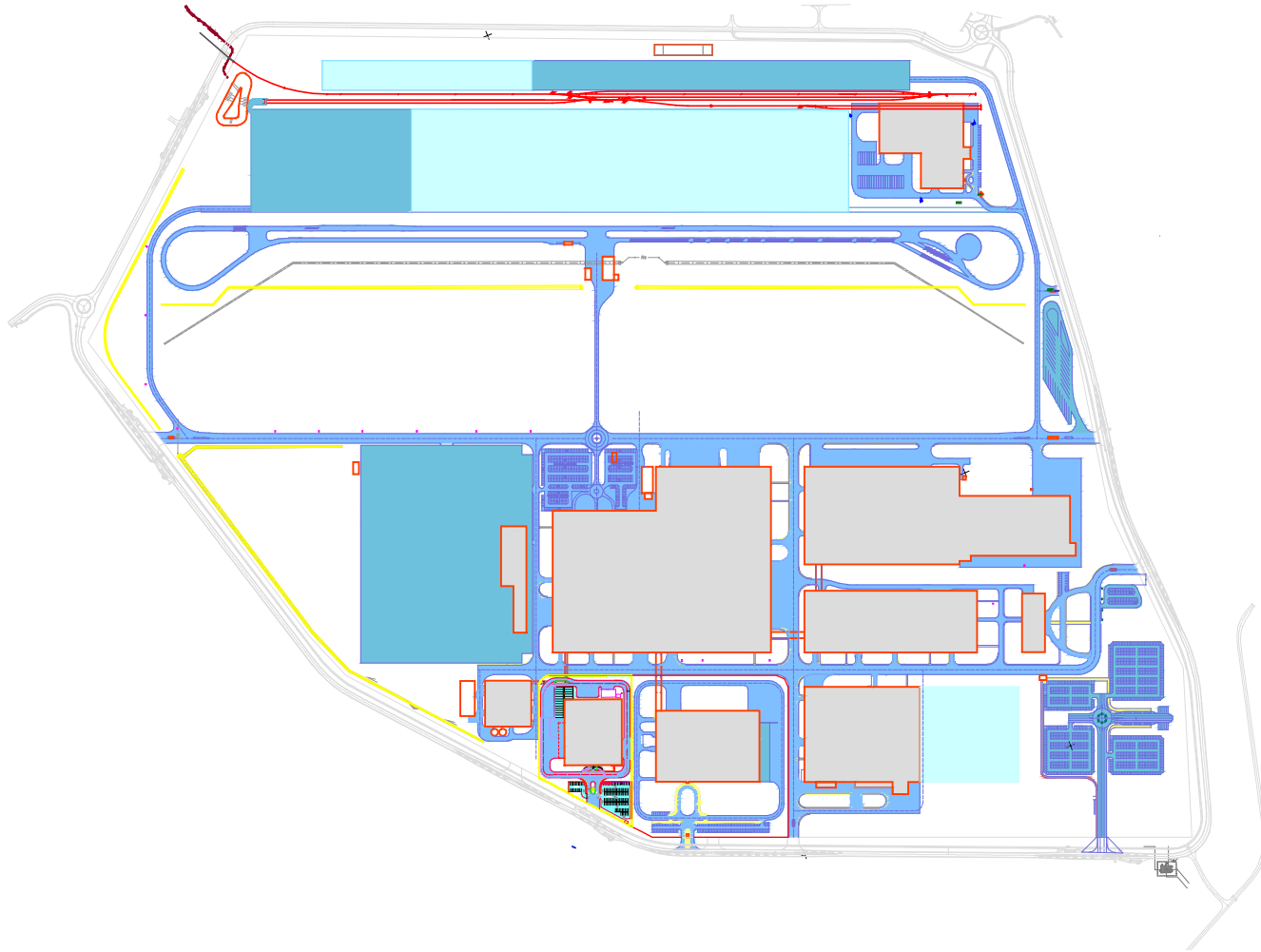


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# External traffic

	Passenger car	Light truck	Heavy truck	Bus
A	60	0	60	0
	Visitors		Transportation truck (for complete cars 10cars/1TP)	
B	3400	288	1490	50
	Employees/Visitors + C	595 HTs/day to HMMC		
C	3340	288	300	50
	Employees/Visitors+ D	144Lts/day, 80 HTs/day to MOBIS		
D	3280	288	300	50
	Employees/Visitors + E	Same as C		
E	700	288	300	5
	Employees/Visitors + F	Same as D		
F	180	0	140	5
	Employees/Visitors	70 HTs/day to DYMOS		





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# Internal traffic

	Passenger car	Light truck	Heavy truck	Bus
A	960	0	0	0
	Product			
B	1200	0	0	0
	Driving test			
C	20	30	0	0
	Employees/Visitors	15 HTs/day for pressed body		
D	50	40	0	0
	Employees/Visitors	Internal transfer (mails, consumables, site check,,)		
E	0	168	0	0
	Employees/Visitors	84 LTs/day for Transmission relay		



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- **Air quality (dispersion study)**

- Current ambient air quality (data from monitoring stations and data from air quality modelling - both easily accessible from the web pages of the Czech Hydrometeorological Institute)
- Future ambient air quality without implementation of the project - model
- Future ambient air quality after implementation of the project (emissions from mobile sources and stationary sources together) - model
- Odour (in specific cases only)

- **Public health (public health impact study)**

If requested so in the conclusion from screening and scoping

- Noise impacts
- Air pollutants impacts
- Socio-economic impacts are not subject to assessment

- **Soil**

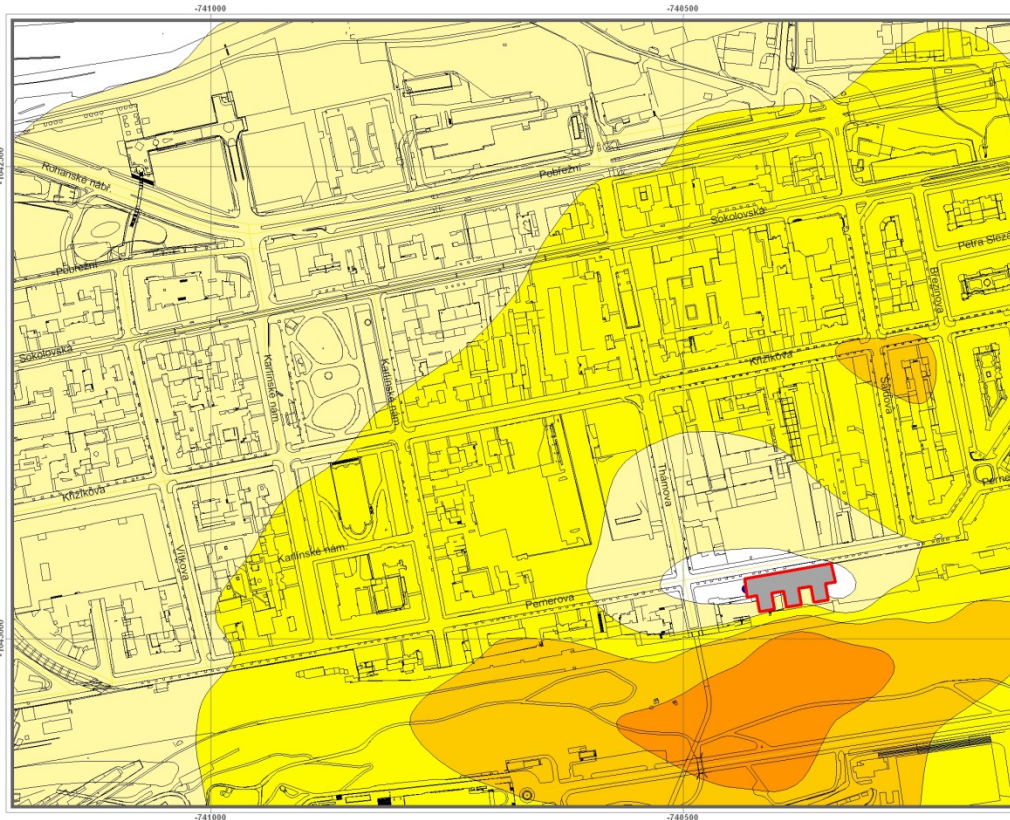
- Brownfield / greenfields
- Agricultural land



# Dispersion model for NO<sub>2</sub> (an example)

**OXID DUSÍČITÝ**  
**průměrné roční koncentrace**

výkres 3



**ROK 2020**  
**rozdílové koncentrace**

Ihr NO <sub>2</sub> (µg.m <sup>-3</sup> )	
rozdílové koncentrace	
< 0.02	
0.02 - 0.04	
0.04 - 0.06	
0.06 - 0.10	
> 0.10	
• kotelna, dieselagregát, gastro, kogenerace	
• výfuk garáží	• požární čerpadlo
■ záměr	
NÁZEV PROJEKTU	APARTMANOVÝ HOTEL KARLÍN
ZADAL	Ing. Bohumil Sulek, ČSc.
ZPRACOVAL	ATEM - Ateliér ekologických modelů, s. r. o.
DATA	01 - 2010
MĚŘÍTKO	1 : 5 000



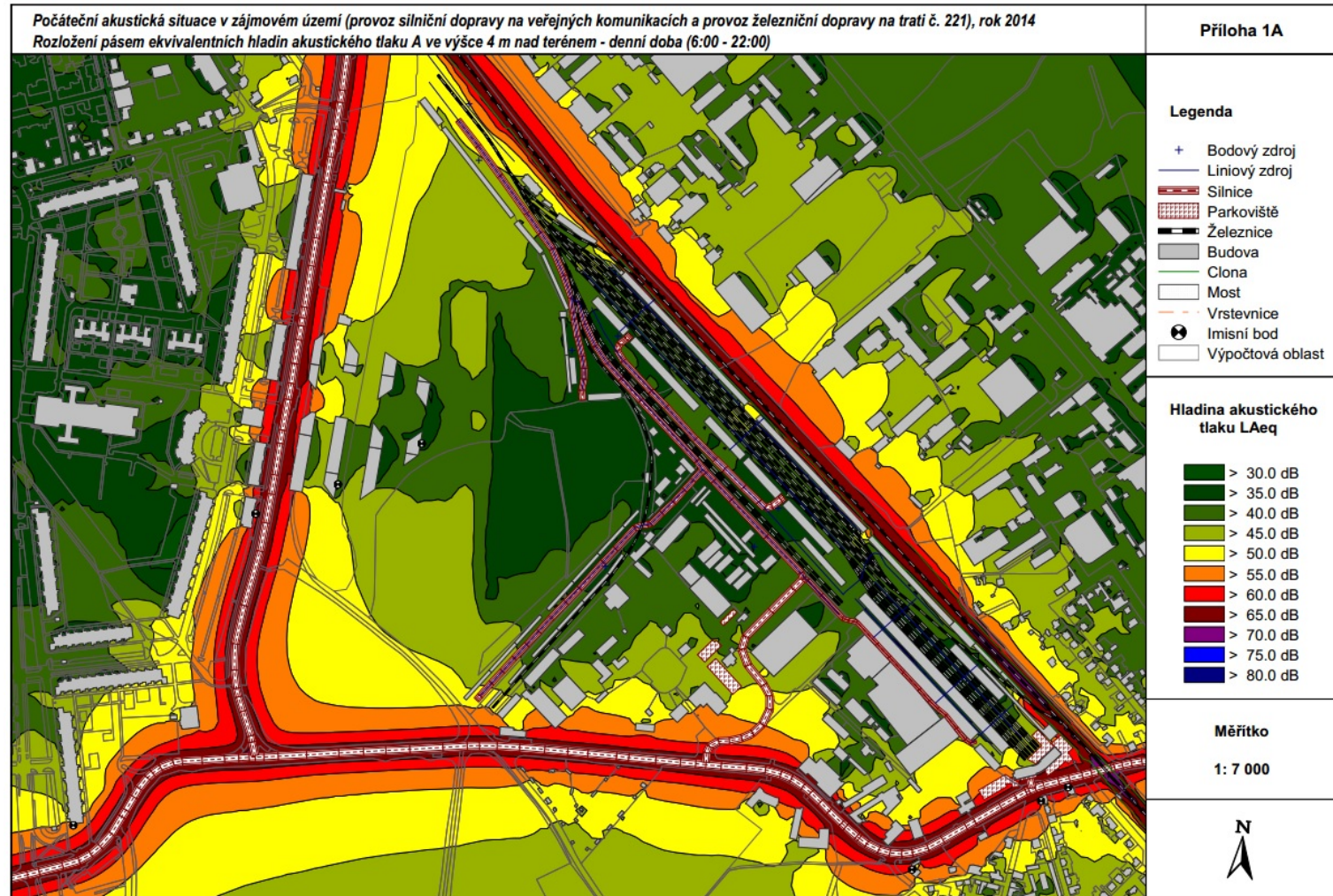
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## Noise model (an example)



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- **Surface water and groundwater**

**Surface water**

- Data concerning recipient (average flow, minimum flow, water quality)
- Raw surface water intake (if relevant), e.g. process water for paper mills or cooling water for hot processes

**Groundwater**

- Capacity of groundwater source

**Waste water discharge into surface water**

- Waste water flow(s)
- Waste water quality (concentration of pollutants, temperature)
- Wastewater pre-treatment and/or treatment (WWTP)
- Waste water quality (concentration of pollutants, temperature) after treatment
- Load of pollution into the recipient (observation of emission limits, observation of permitted concentration in the recipient – dilution)
- Observation of maximum permitted increase of water temperature in the recipient

**Wastewater discharge into groundwater is not allowed in general**





- **Flora nad fauna**

Investigation of flora and fauna (if relevant)

- Focus on protected species
- Focus on protected areas
- Study of impacts on Natura 2000 sites (if significant impacts can not be excluded)

- **Wastes**

- List of hazardous wastes (as complete as possible)
- List of other wastes
- Amounts of wastes, waste treatment capacities
- Description of waste managements systém in place

- **Potential risks related to used substances and technologies**

- Description of known potential risks and proposed measures to prevent / mitigate the risk

- **Natural resources**



## Real examples illustrating the key issues adressed

### Automobile production plant

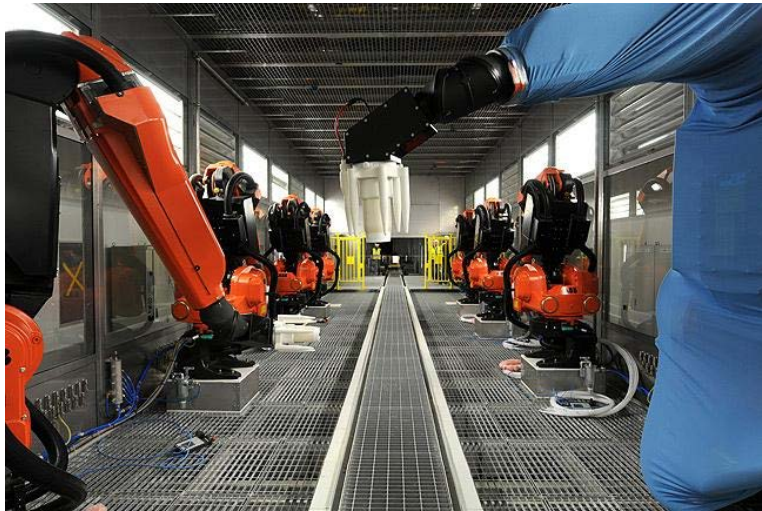
- **Production plant for personal motor cars, together with all necessary technical facilities, equipment and warehouses and storage areas**
- **Final production capacity of the production plant will be 300 000 complete cars per year.**
- **In the plant, there will be produced welded car bodies, gear-boxes, and some modules of interior equipment. Car bodies will be completely painted and made ready for assembling. All other basic car parts and components will be delivered as subdelivery (wheel axles, wheel discs, glasses, seats, tyres, etc.).**



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## Automobile production plant – studies carried out

- **Traffic study**
- **Complex dispersion study**
- **Complex noise study**
- **Human health impacts study (Public health study)**
- **Flora and fauna investigation**
- **Natura 2000 impact study**



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### Machinery plant for pipe fittings

- **Production of variety of pipe fittings for energy sector**
- **Production of pipe bends (arch pipes) for the same sector**
- **Major operations will be welding, working (turning, milling work, grinding) and hot bending**
- **Tubes and casting for fitting will be delivered as subdelivery**

### Automobile production plant – studies carried out

- **Traffic study**
- **Simple dispersion study**
- **Simple noise study**
- **Flora and fauna investigation**





# Thank you for your attention!



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