

GÖTEBORG STRATEGIC MODEL - TRAINING WEBINAR 2

GÖTEBORG STRATEGIC MODEL - TRAINING SESSIONS

Overview of the 4 Webinars

- 11.5.2020
 - Overview of the calculation procedures
 - Congestion Charging Implementation
 - PrT and PuT Assignment

- **18.5.2020**
 - Scenario Manager - General Presentation
 - Updating future year person groups

- 25.5.2020
 - Scenario Manager - a practical example

- 1.6.2020
 - Model Management: how users should work with the model

CONTENT

1. Scenario Manager
2. Updating Future Year Person Groups

1. SCENARIO MANAGER

Motivation Scenario Manager

► Usual modelling approach:

- Create a validated base situation
- Development of variants and scenarios based on initial situation
 - add studies, projects, future year projections... change one or several input parameters, but leave the basic structure or calculation intact
 - Save as a new model
- Variants and scenarios are compared to initial results

➔ This creates numerous files

- Version files for each tested scenario
- Shared graphical parameters
- Network comparison files
- Some sort of project management file (Excel, Word...)

1. SCENARIO MANAGER

Overview Scenario Manager

- ▶ Scenario Manager is
 - User interface simplifying existing Visum functionalities
 - Database of the modelling project

- ▶ Scenario Manager can
 - Manage the version files
 - Launch calculations simultaneously and/or stacked
 - Give overview of main calculation results (nb passengers, veh.km...)

- ▶ Scenario Manager helps maintaining most or all files of the modelling effort

1. SCENARIO MANAGER

Overview Scenario Manager

► Main Parts - 1

- Base version
 - Type: Standard version file (.ver)
- Modifications
 - Type: Transfer files (.tra)
→ Adding, deleting or modifying network elements
 - Can contains future projects, variants or modifications of existing elements' attributes
- Procedure Parameter Sets
 - Type: Procedure parameter file (.xml)
 - Contains list of procedures and general procedure settings
- Scenarios
 - No file type, configuration is stored in Scenario Manager database
 - Combination of modifications and one procedure parameter set
 - Calculated scenario saved as version file

1. SCENARIO MANAGER

Overview Scenario Manager


► Main Parts - 2


- Comparison Models
 - Type: network and layout files
 - Similar to MS Word templates
 - Definition of network elements to be compared
 - Setup of graphic parameters for comparison
- Scenario Manager Database
 - Type: Visum Project Database (.vpdb)
 - SQL Database
 - Do not open directly (since Visum 15)
- Scenario Manager launch file
 - Type: Visum Project Database launch file (.vpdbx)
 - File that needs to be opened=


1. SCENARIO MANAGER


Overview Scenario Manager - File Organisation


► All Files live in a project folder (TK Goteborg Strategic Model v1.4)


 TK_Goteborg_Strategic_ModelBase.ver


 TK_Goteborg_Strategic_Model.vpdbx


 TK_Goteborg_Strategic_Model.vpdb


 Backups


 Comparisons


 GlobalLayouts


 GridLayouts










 Modifications

 Procedures

 Scenarios

 SharedData

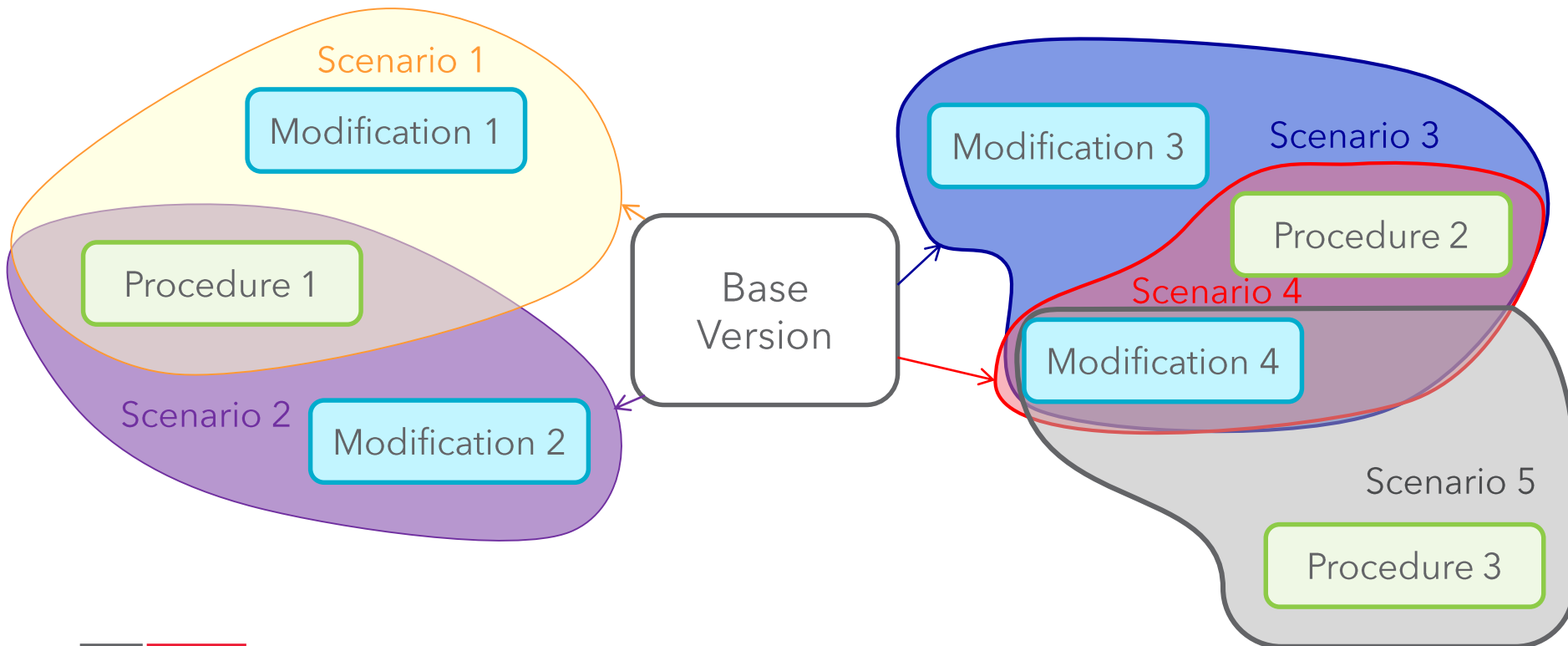
 Temp

- Base Version: containing most important or all network elements (.ver)
- Scenario Manager Launch file: used to open SM project (.vpdbx)
- Scenario Manager Project Database: heart of the SM (.vpdb)
-  Backups: 5 backups of SM Database
-  Comparisons: 1 subfolder for each Network comparison configuration (.net, .lay)
-  Global Layouts: Layout files - combination of lists, filters, windows (.lay)
-  GridLayout: Configuration of SM window elements (which attributes are shown in each tab - .lla)
-  Modifications: model transfer files (.tra)
-  Procedures: procedure parameter sets (.xml)
-  Scenarios: 1 subfolder for each calculated scenario
-  SharedData: graphic parameters, list layouts, screenshots, background images... all other files shared between scenarios
-  Temp: storage of version files during calculation, modification...

1. SCENARIO MANAGER

Overview Scenario Manager

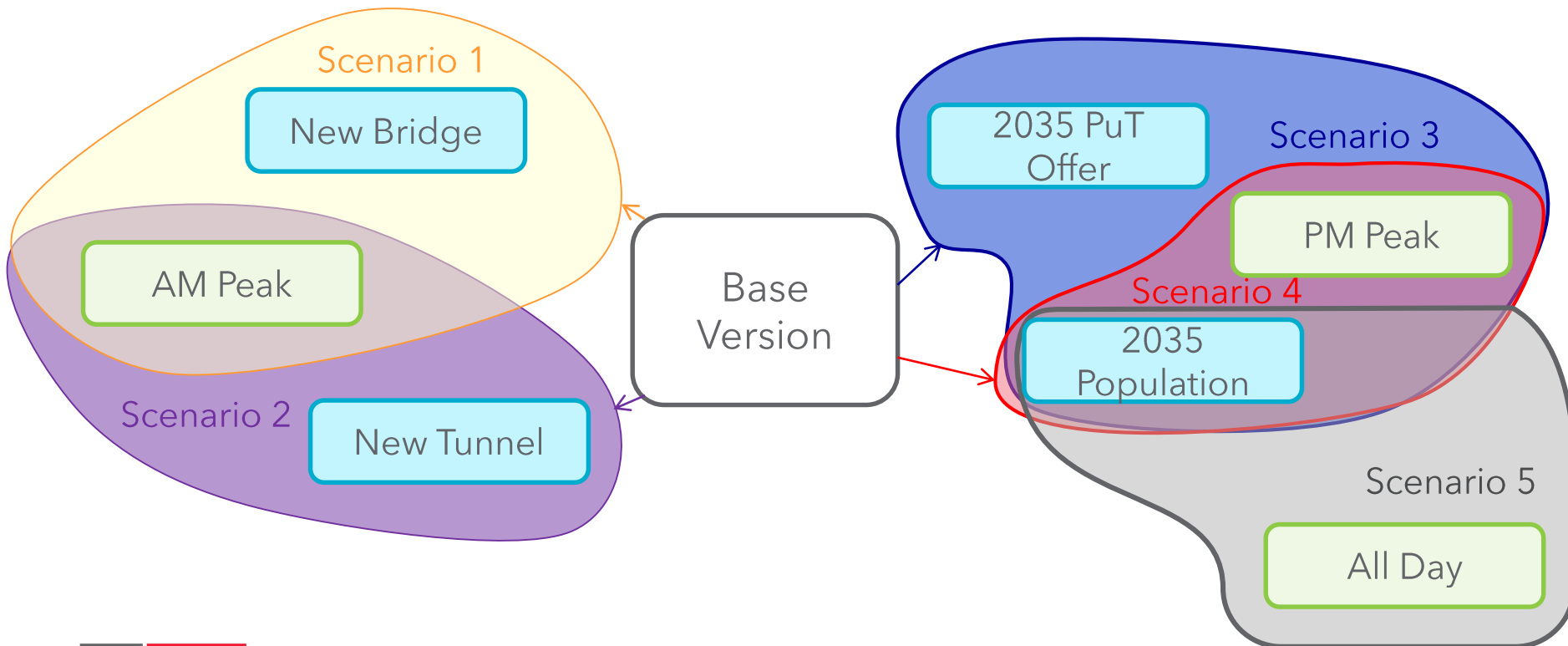
- ▶ How does it work
 - Modifications and Procedures are applied to Base Version and saved as new version file after calculation (a calculated scenario is a version file)



1. SCENARIO MANAGER

Overview Scenario Manager

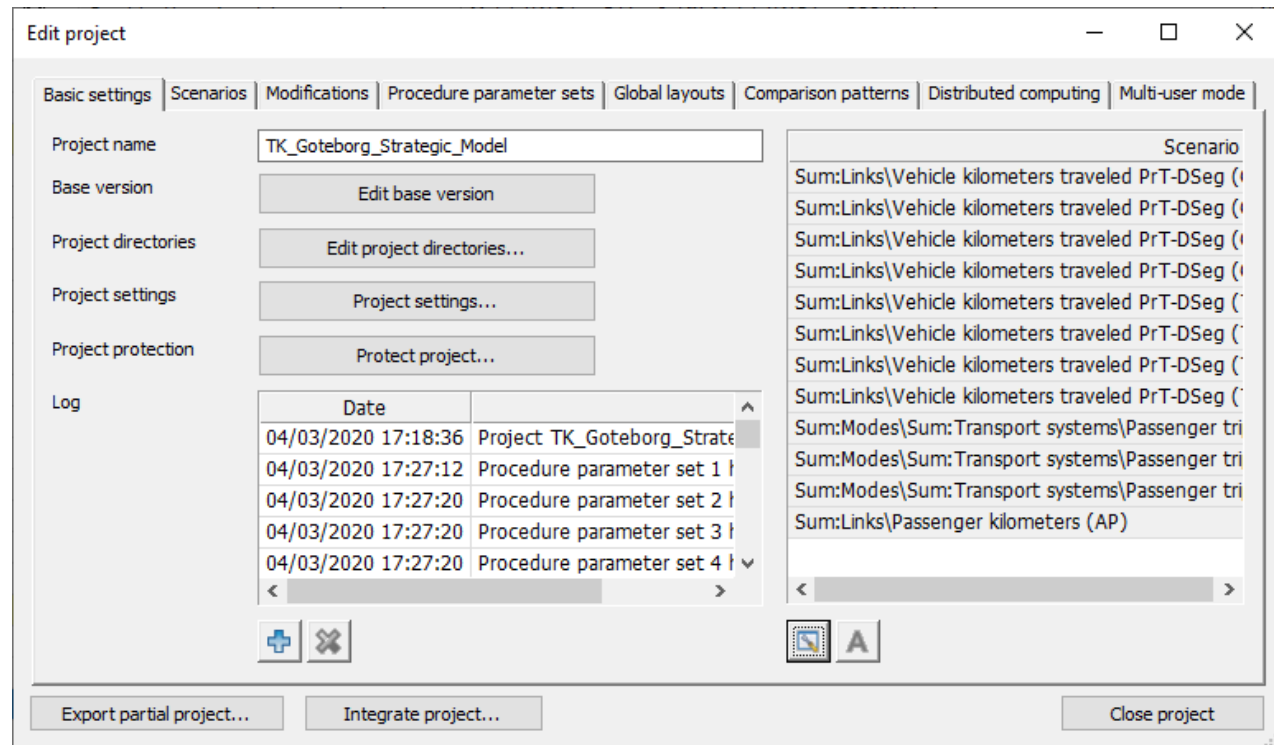
- ▶ How does it work
 - Modifications and Procedures are applied to Base Version and saved as new version file after calculation (a calculated scenario is a version file)



1. SCENARIO MANAGER

Overview Scenario Manager

- User Interface: Basic Settings
 - Edit Base Version
 - Modify internal project folders
 - Configure Scenario Indicators



1. SCENARIO MANAGER

Overview Scenario Manager


- ▶ User Interface: Scenarios
 - Configuration of scenarios: which modifications, which procedure parameters
 - Launch calculation of scenarios
 - Select scenarios to compare

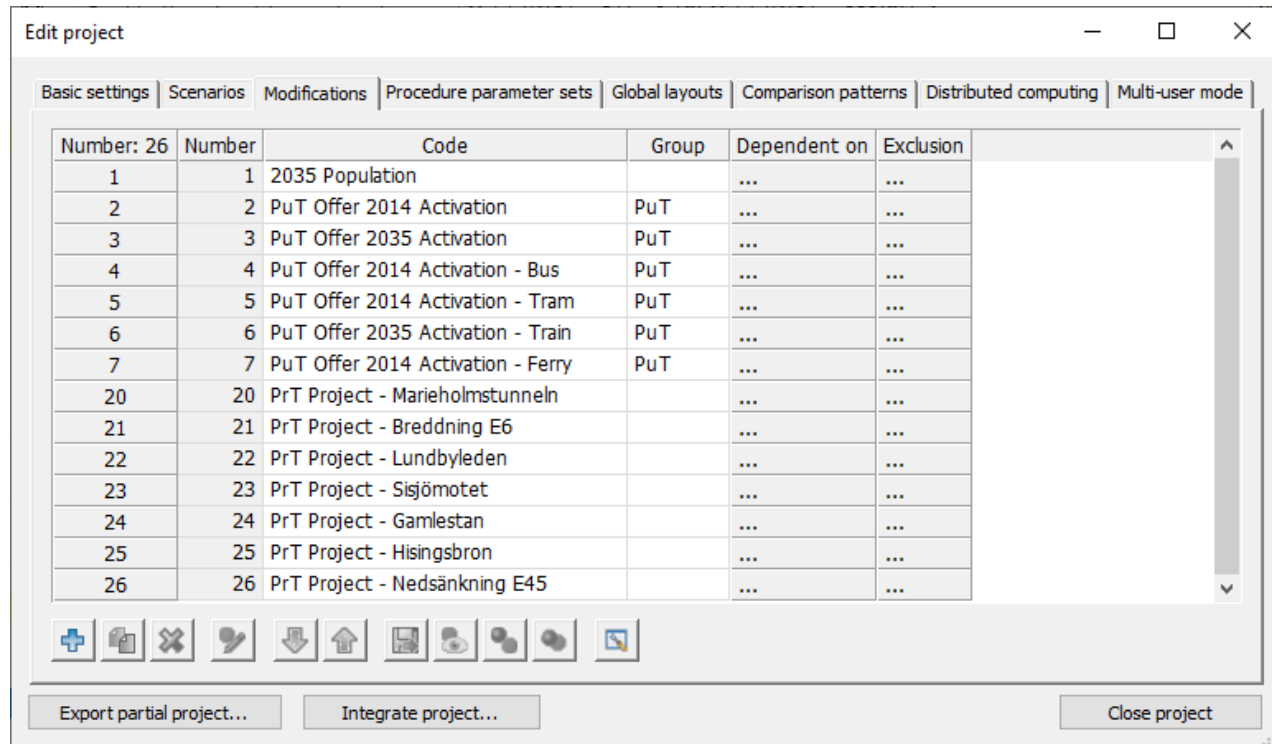
Number: 12	Active	Number	Code	Procedure parameter set	Modification
1	<input type="checkbox"/>	1	2014 AM Peak - Calibration	1 2014 AM Peak - calibration	2
2	<input type="checkbox"/>	2	2014 PM Peak - Calibration	2 2014 PM Peak - calibration	2
3	<input type="checkbox"/>	3	2014 All Day - Calibration	3 2014 All Day - calibration	2
4	<input type="checkbox"/>	4	2035 AM Peak - Maximum	4 AM Peak - incl. Backa Exemp	1,3,15,16,17,18,19,20,21
5	<input type="checkbox"/>	5	2035 PM Peak - Maximum	5 PM Peak - incl. Backa Exemp	1,3,15,16,17,18,19,20,21
6	<input type="checkbox"/>	6	2035 All Day - Maximum	6 All Day - incl. Backa Exempti	1,3,15,16,17,18,19,20,21
7	<input type="checkbox"/>	7	2035 AM Peak - Minimum	4 AM Peak - incl. Backa Exemp	1,2
8	<input type="checkbox"/>	8	2035 PM Peak - Minimum	5 PM Peak - incl. Backa Exemp	1,2
9	<input type="checkbox"/>	9	2035 All Day - Minimum	6 All Day - incl. Backa Exempti	1,2
10	<input checked="" type="checkbox"/>	10	2035 AM Peak - Maximum - CC Correction	13 AM Peak - incl. Backa Exen	1,3,15,16,17,18,19,20,21
11	<input checked="" type="checkbox"/>	11	2035 PM Peak - Maximum - CC Correction	14 PM Peak - incl. Backa Exern	1,3,15,16,17,18,19,20,21
12	<input checked="" type="checkbox"/>	12	2035 All Day - Maximum - CC Correction	15 All Day - incl. Backa Exemp	1,3,15,16,17,18,19,20,21

1. SCENARIO MANAGER

Overview Scenario Manager

► User Interface: Modifications

- Create/Change/Delete Modifications (hint: one modification for each project)
- Modifications can be dependent on other modifications
- List content of Modifications 



Basic settings | Scenarios | Modifications | Procedure parameter sets | Global layouts | Comparison patterns | Distributed computing | Multi-user mode

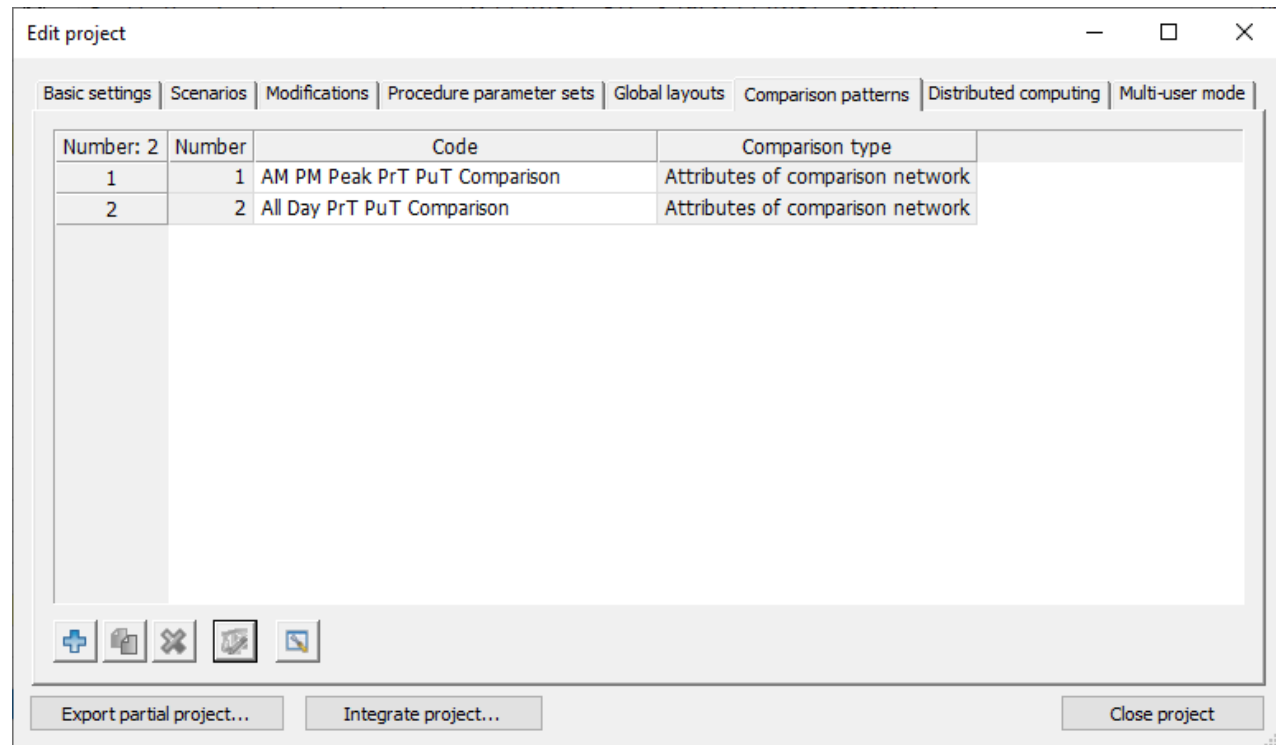
Number: 26	Number	Code	Group	Dependent on	Exclusion
1	1	2035 Population		...	...
2	2	PuT Offer 2014 Activation	PuT	...	...
3	3	PuT Offer 2035 Activation	PuT	...	...
4	4	PuT Offer 2014 Activation - Bus	PuT	...	...
5	5	PuT Offer 2014 Activation - Tram	PuT	...	...
6	6	PuT Offer 2035 Activation - Train	PuT	...	...
7	7	PuT Offer 2014 Activation - Ferry	PuT	...	...
20	20	PrT Project - Marieholmstunneln		...	...
21	21	PrT Project - Breddning E6		...	...
22	22	PrT Project - Lundbyleden		...	...
23	23	PrT Project - Sisjömotet		...	...
24	24	PrT Project - Gamlestan		...	...
25	25	PrT Project - Hisingsbron		...	...
26	26	PrT Project - Nedsänkning E45		...	...

Export partial project... Integrate project... Close project

1. SCENARIO MANAGER

Overview Scenario Manager

- ▶ User Interface: Comparison patterns
 - Create/Change/Delete Comparison patterns: pre-configuration of version comparisons
 - Use separate comparisons for peak hour and all day for appropriate scaling



1. SCENARIO MANAGER

Scenario Manager of Göteborg Strategic Model

► Main characteristics

- Nearly everything is in the base version
 - Current PrT network
 - Current PuT network
 - Current socio-economics
 - Future year PrT projects (nodes, links, main nodes)
 - Future year PuT projects (PuT lines, future PuT transport systems like Metrobus, Linbana, Stadsbana)
 - All matrices
 - All user defined attributes

→ allows for maximum compatibility and unbroken PuT lines

- Not in base version
 - Future year socio-economics
 - Procedure parameter sets

1. SCENARIO MANAGER

Scenario Manager of Göteborg Strategic Model

► Main characteristics

- Base year PrT network is activated
 - Base year PuT network not activated
 - Needs to be activated by a modification
 - Future years PrT and PuT network is inactive as standard
 - Needs to be activated in modifications
 - Modifications do not add, modify or delete network infrastructure
 - Modifications only activate PrT and PuT projects
 - PrT: 1 modification = 1 project
 - PuT: 1 modification activates 1 PuT transport system or all transport systems of horizon
- ➔ allows for very light modifications, quick to load, as no new network elements need to be loaded into memory

1. SCENARIO MANAGER

Scenario Manager of Göteborg Strategic Model

► Active/Non active

- PrT: controlled via Link Type
 - link types are set to "Strict" in base version
 - Link type 99 "PrT & PuT Projekt": future year project, Capacity 0 → link is inactive
 - Other link types: current year link types with v0, capacity... → link is active
- PuT: controlled via Line UDA "Active_Line"
 - Value 0 → line is not active
 - Value 1 → line is active
 - Utilized by the only filter applied of the procedure parameters: "PuT_Active_Line.fil" and PuT assignment (only use active lines)

List (Links)										
Select list layout...										
Number: 221,704	No	FromNodeN	ToNodeN	Typ	Link Type\Name	TSysSet	Length	NumLane	CapPr	V0PrT
220694	1171934653	10000821	700286	36	Sekundär länsväg - 1 kf - 70	Bike,Bus,Car,Ca	0.037km	1	1700	74km/h
220695	1171934654	742780	99730183	9	Avfart/påfart, Motorväg - 1 kf - 70	Bus,Car,Car no	0.437km	1	1600	69km/h
220696	1171934656	99730183	868631	9	Avfart/påfart, Motorväg - 1 kf - 70	Bus,Car,Car no	0.111km	1	1600	69km/h
220697	1171934658	981901	1252950	93	Cykelbana	Bike,Citybus,Lin	0.321km	1	300	50km/h
220698	1171934658	1252950	981901	93	Cykelbana	Bike,Citybus,Lin	0.321km	1	300	50km/h
220699	1171934659	8701326	10000015	99	PrT & PuT Projekt	Bus,Citybus,Fen	1.580km	1	0	50km/h
220700	1171934659	10000015	8701326	99	PrT & PuT Projekt	Bus,Citybus,Fen	1.580km	1	0	50km/h
220701	1171934660	8701326	10001603	99	PrT & PuT Projekt	Bus,Citybus,Fen	1.049km	1	0	50km/h
220702	1171934660	10001603	8701326	99	PrT & PuT Projekt	Bus,Citybus,Fen	1.049km	1	0	50km/h

1. SCENARIO MANAGER

Scenario Manager of Göteborg Strategic Model

- ▶ Activation of PrT network elements
 - For new links, switch link type from project (type 99) to appropriate link type
 - For existing links, switch to link type necessary for project (2 to 3 lanes, reduces speed...)
 - If existing links need to be "deactivated" due to PuT projects, use link type 100 "Stängd för PrT pga PuT Projekt"

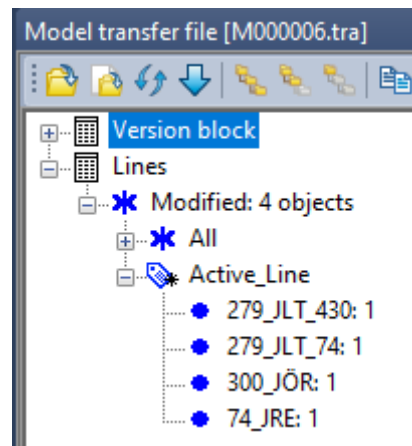
- ▶ Activation of PuT lines
 - Set Line UDA "Active_Line" to 1 to activate
 - Set Line UDA "Active_Line" to 0 to deactivate

- ▶ Socio-Economic Data
 - Needs to be calculated outside Visum (Excel file available)
 - To be used in a Modification changing population in persons groups and zone characteristics (workplaces...)

1. SCENARIO MANAGER

Scenario Manager of Göteborg Strategic Model

- ▶ PuT Modifications
 - Activate all PuT lines of 2014
 - Activate all PuT lines of 2035
 - Activate all PuT lines per TrSys of 2014
 - Activate all PuT lines per TrSys of 2035
- ▶ Only 1 attribute changed
 - Active_Line



Number: 26	Number	Code	Group
1	1	2035 Population	
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4	4	PuT Offer 2014 Activation - Bus	PuT
5	5	PuT Offer 2014 Activation - Tram	PuT
6	6	PuT Offer 2014 Activation - Train	PuT
7	7	PuT Offer 2014 Activation - Ferry	PuT
8	8	PuT Offer 2035 Activation - Bus	PuT
9	9	PuT Offer 2035 Activation - Citybus	PuT
10	10	PuT Offer 2035 Activation - Metrobus	PuT
11	11	PuT Offer 2035 Activation - Tram	PuT
12	12	PuT Offer 2035 Activation - Stadsbana	PuT
13	13	PuT Offer 2035 Activation - Train	PuT
14	14	PuT Offer 2035 Activation - Ferry	PuT
15	15	PrT Project - Kallebäcksmotet	

Export partial project... Integrate project...

1. SCENARIO MANAGER

Scenario Manager of Göteborg Strategic Model

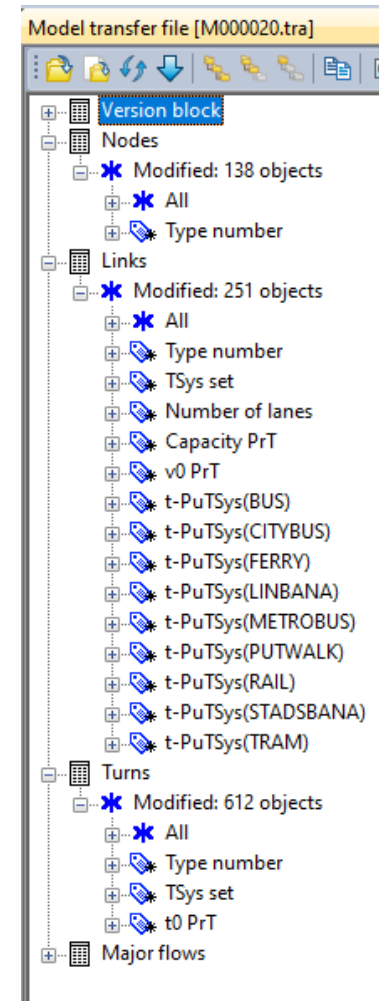
- PrT Modifications
 - 1 modification per project
- Only 1 link attribute changed
 - Link Type
 - Cap, v0, TSys set... linked to type
- Other changes
 - Node Type
 - Signalized, Rbt, unknown
 - Turns
 - Can be set automatically when adding link in base version
 - Depending on project (closed turns...)

Edit project

Basic settings | Scenarios | Modifications | Procedure parameter sets | Global layouts

Number: 26	Number	Code	Group
15	15	PrT Project - Kallebäcksmotet	
16	16	PrT Project - Sörredsmotet	
17	17	PrT Project - Halvors Länk	
18	18	PrT Project - Hisingsleden, södra delen	
19	19	PrT Project - Eriksbergsmotet	
20	20	PrT Project - Marieholmstunneln	
21	21	PrT Project - Breddning E6	
22	22	PrT Project - Lundbyleden	
23	23	PrT Project - Sijömotet	
24	24	PrT Project - Gamlestan	
25	25	PrT Project - Hisingsbron	
26	26	PrT Project - Nedsänkning E45	

Export partial project... Integrate project...



1. SCENARIO MANAGER

Scenario Manager of Göteborg Strategic Model

► Adding new network element to reference model

- Base version only to be modified by model owner
- 2-step approach (same logic as base version + modifications)
 1. Add all network elements
 2. Activate network elements



- 1 Modification for all new network elements
- 1 Modification per project activating the new network elements
 - This Modification must be dependent on Modification that introduced new network elements
- Best working with specific network ID ranges for node and link numbers, to be handed out by model manager (TK)
 - Greatly reduces network ID conflicts if several consultancies work on model the same time
- → More details in next webinar

2. UPDATING FUTURE YEAR PERSON GROUPS

Future Year Socio-Economic Data

➤ Based on SAMS Database also used in Sampers

- Data available per zone
 - No persons per age class and employment status
 - Car and driver license availability
 - Workplaces 2035

SAMSID	BefSum	bef_förv	bef_ejförv	Bef0_6_s um	Bef0_6_f örv	Bef0_6_e jförv	Bef7_12_sum	Bef7_12_förv	Bef7_12_ejförv	Bef13_15_sum	Bef13_15_förv	Bef13_15_ejförv	Bef16_17_sum
1140001	4353	2216	2137	387	0	387	335	0	335	163	0	163	111
1140002	1325	671	654	71	0	71	54	0	54	29	0	29	21
1140003	1028	544	484	36	0	36	22	0	22	14	0	14	10
1140004	3283	1631	1652	372	0	372	346	0	346	180	0	180	113

	Population	Working population	Non working population	Daytime population (workplaces)	Car owners	Number of cars	Leasing cars	Population with access to a car	Population with driving license
Visum Zon ID	BefSum	Bef_förv	Bef_ejförv	Dagbef_Tot	Bilägare	BilAntal	Leasing	Bildisponerare	Körkort
1384000201	3887	1886	2001	612	1671	1869	93	3415	2479
1384000202	1660	804	856	944	762	851	43	1557	1066
1384000203	3225	1568	1657	261	1398	1563	78	2857	1978
1384000204	1059	509	550	262	449	502	25	917	666

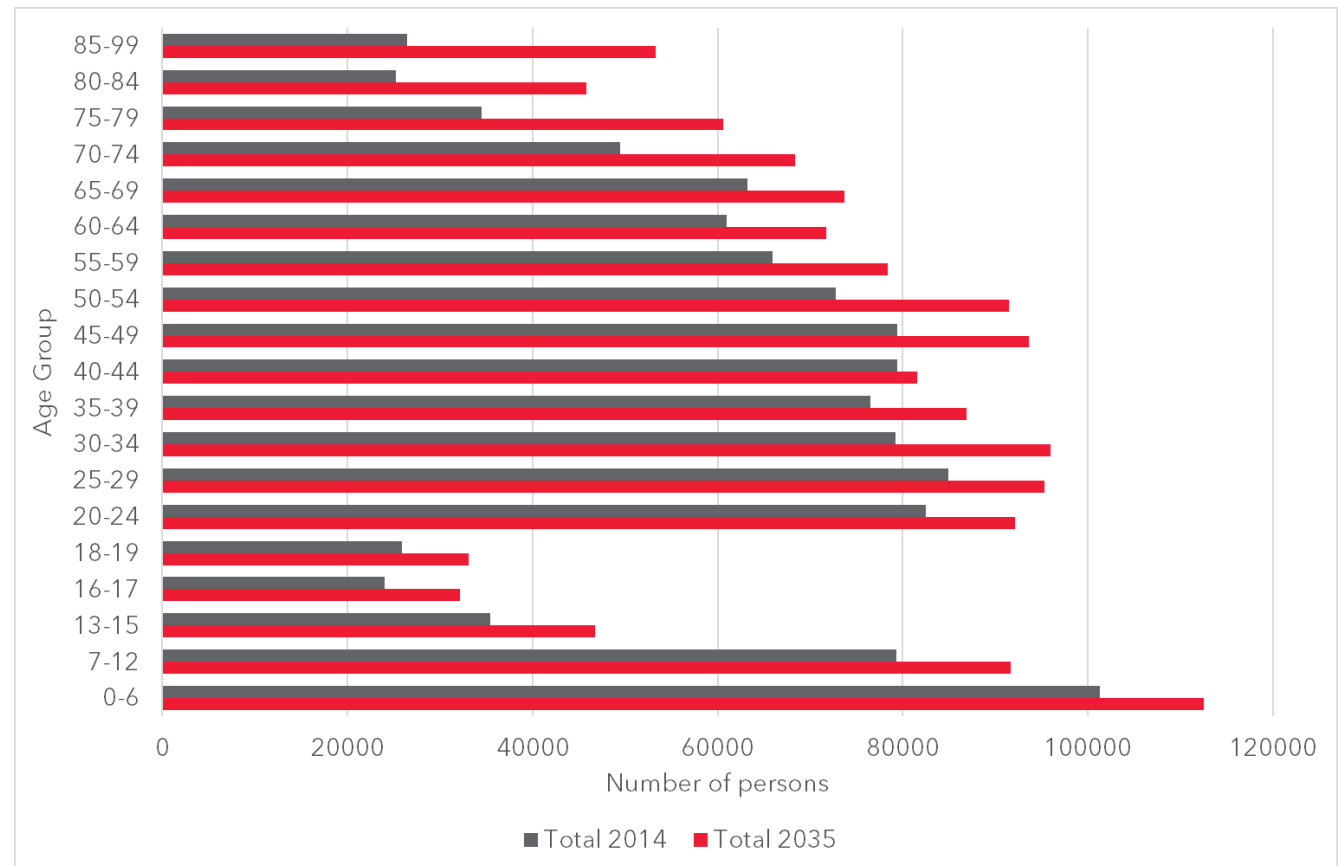
➤ Update process

- First: update Main person groups per activity status
 - Second: apply car availability
- ➔ Details in report

2. UPDATING FUTURE YEAR PERSON GROUPS

Population Projection

- Average age increases by 2 years



2. UPDATING FUTURE YEAR PERSON GROUPS

Update Procedure Person Groups

- 11-17 years old projection: can be employed or non-employed
 - 11-17 non-employed → pupils 11-14 or 15-17 directly from projection
 - 11-17 employed → workers without license

- 18-59 years old projection: can be employed (workers or students) or non-employed (inactive or students)
 - Workers: could be full-time, part-time or students → only hhsurvey has info
 - Evolution of share of working persons 2035/2014 applied on working person group
 - Students: only hhsurvey has info
 - 2014 Student share of population is used
 - Inactive: Total Population (18-59) - Workers (18-59) - Students (18-59)

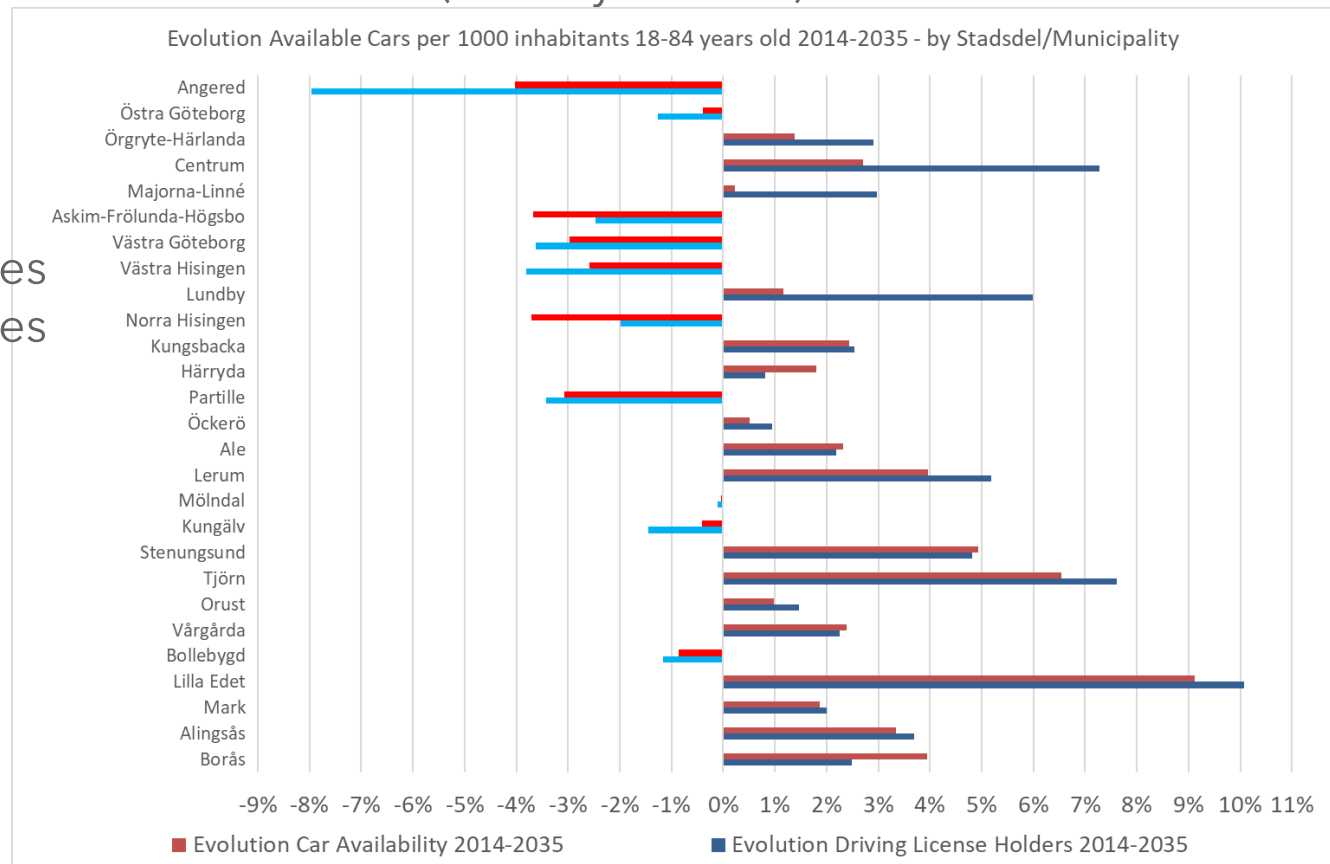
- 60-84 years old projection: can be employed (workers) or non-employed (inactive or retired)
 - No Students above 59 years old
 - Workers: 2035 projection * 2014 ratio full-time/part-time workers (hhsurvey)
 - Inactive: 2014 share of population (hhsurvey, no evolution)
 - Retired: 2035 projection non-employed - 2035 inactive

2. UPDATING FUTURE YEAR PERSON GROUPS

Car and Driving License Availability

- Overall car availability drops slightly, but marked regional differences
- 2014: 516 cars per 1000 inhabitants (18-84 years old)
- 2035: 510 cars

- 2014: 815 licenses
- 2035: 824 licenses



2. UPDATING FUTURE YEAR PERSON GROUPS

Update Procedure Car availability and driving license holders

- Car availability: owned + leased cars per 1000 inhabitants 18-84 y/o
- Per SDEL/municipality to even out local spikes in projection
- Workers
 - “internal” ratio of $ftw+c/ptw+c$ does not change (only hhsurvey has info)
 - Evolution of car availability applied to sum of $ftw+c$ and $ptw+c$
 - Evolution of driving license holders only applied to workers without car but with license ($w0c$)
 - Workers without license ($w00$) = All Workers - $\text{sum}(ftc+w, ptw+c, w0c)$
- Inactive
 - Evolution of car availability applied to Inactives with cars ($i+c$)
 - Inactives without car ($i0c$) = All Inactives - $i+c$
- Retired
 - Evolution of car availability applied to Retired with cars ($r+c$)
 - Retired without car ($r0c$) = All Retired - $r+c$
- Manual correction if any non-car person group is negative

2. UPDATING FUTURE YEAR PERSON GROUPS

Final Future Year Person Groups

Statistik	Basomrade	HF_11_14	HF_15_17	HF_18_24	HF_25_39	HF_40_59	HF_60_64	HF_65_69	HF_70_74	HF_75_84	Population totale	Total Population	SDN
60101	60101	77	70	513	1 199	683	140	153	155	319	3 308	3 716	131
60102	60102	26	18	28	87	131	29	25	18	32	393	483	131
60104	60104	44	32	113	295	268	58	54	50	92	1 006	1 173	131
60105	60105	0	0	0	0	0	0	0	0	0	0	0	131
60107	60107	59	53	389	907	516	107	116	116	242	2 505	2 815	131
60151	60151	0	0	0	0	0	0	0	0	0	0	0	131
60152	60152	0	0	0	0	0	0	0	0	0	0	0	131
60153	60153	0	0	1	3	3	0	0	0	0	7	9	131

131	2014 ratios from household survey												
	full-time workers with car	part-time workers with car	workers without car	workers without license	non-workers with car	non-workers without car	retired with car	retired without car	students	pupils_15-17	pupils_11-14	total	
	ftw+c	ptw+c	w0c	w00	i+c	i0c	r+c	r0c	students	pupils_15	pupils_11	total	
11_14	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	
15_17	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%	
18_24	27%	0%	13%	14%	1%	9%	0%	0%	35%	0%	0%	100%	
25_39	48%	2%	5%	15%	5%	14%	0%	0%	11%	0%	0%	100%	
40_59	58%	12%	3%	11%	2%	13%	0%	0%	1%	0%	0%	100%	
60_64	27%	2%	3%	4%	1%	2%	40%	22%	0%	0%	0%	100%	
65_69	27%	2%	3%	4%	1%	2%	40%	22%	0%	0%	0%	100%	
70_74	27%	2%	3%	4%	1%	2%	40%	22%	0%	0%	0%	100%	
75_84	2%	0%	0%	0%	0%	0%	35%	62%	0%	0%	0%	100%	
total	40%	5%	4%	11%	2%	10%	9%	7%	8%	5%	0%	100%	

share of working Pop 2014/2035				share of non-working Pop 2014/2035				share of retired Pop 2014/2035				
Share Working Pop 2014 per age group (thisurvey)	Share Working Pop 2014 per census per age group	Share Working Pop 2035 prognosis per age group	Difference Share Working Population (points)	Share Nonworking Pop 2014 per age group	Share Nonworking Pop 2035 prognosis per age group	Difference (points)	Share Retired Pop 2014 per age group	Share Retired Pop 2035 per age group (nonworking >59 = retired)	Difference (points)	R2014/POP	R2035/POP	Difference (points)
W2014/POP	O14Census/F	W2035/POP	Diff Δw	NW2014/POP	NW2035/POP	Diff (points)	R2014/POP	R2035/POP	Diff (points)	R2014/POP	R2035/POP	Diff (points)
0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%
0%	2%	2%	0%	100%	98%	-2%	0%	0%	-2%	0%	0%	0%
54%	36%	46%	14%	46%	54%	8%	0%	0%	8%	0%	0%	0%
70%	57%	69%	15%	30%	31%	1%	0%	0%	1%	0%	0%	0%
84%	63%	73%	14%	16%	27%	11%	0%	0%	11%	0%	0%	0%
36%	51%	57%	15%	64%	43%	-21%	61%	43%	-18%	61%	43%	0%
36%	16%	44%	8%	64%	56%	-8%	61%	56%	-5%	61%	56%	5%
36%	8%	25%	11%	64%	75%	11%	61%	75%	14%	61%	75%	14%
2%	0%	0%	0%	98%	100%	2%	98%	100%	2%	98%	100%	2%

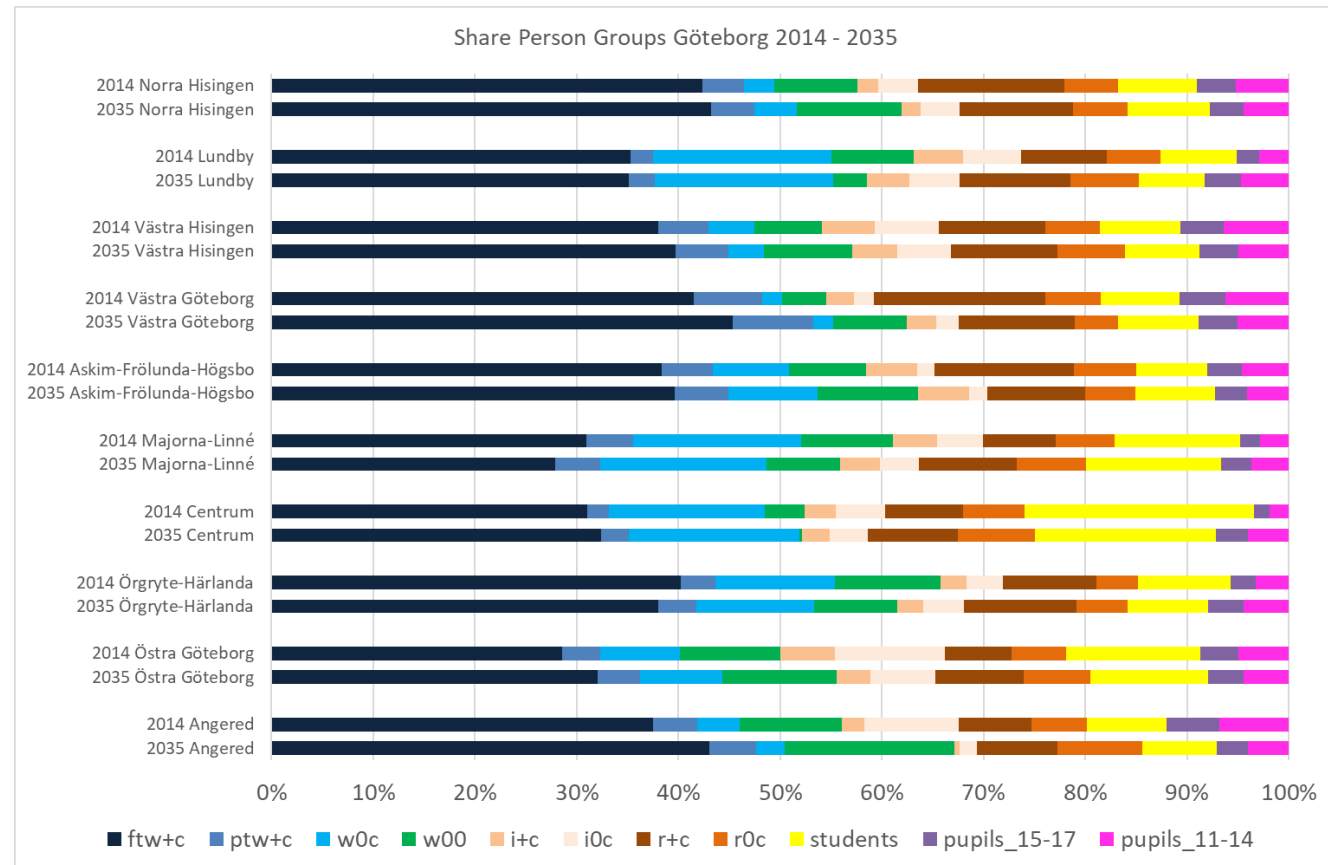
these are the final population values

Basomrade	ftw+c	ptw+c	w0c	w00	i+c	i0c	r+c	r0c	students	pupils_15-17	pupils_11
60101	1 406	127	112	112	575	17	59	266	304	298	68
60102	165	21	7	7	60	2	6	35	35	20	17
60104	423	46	26	26	163	5	17	87	94	70	31
60105	0	0	0	0	0	0	0	0	0	0	0
60107	1 064	96	85	85	435	13	45	201	230	225	52
60151	0	0	0	0	0	0	0	0	0	0	0
60152	0	0	0	0	0	0	0	0	0	0	0
60153	4	0	0	0	2	0	0	0	0	1	0

2. UPDATING FUTURE YEAR PERSON GROUPS

Final Future Year Person Groups

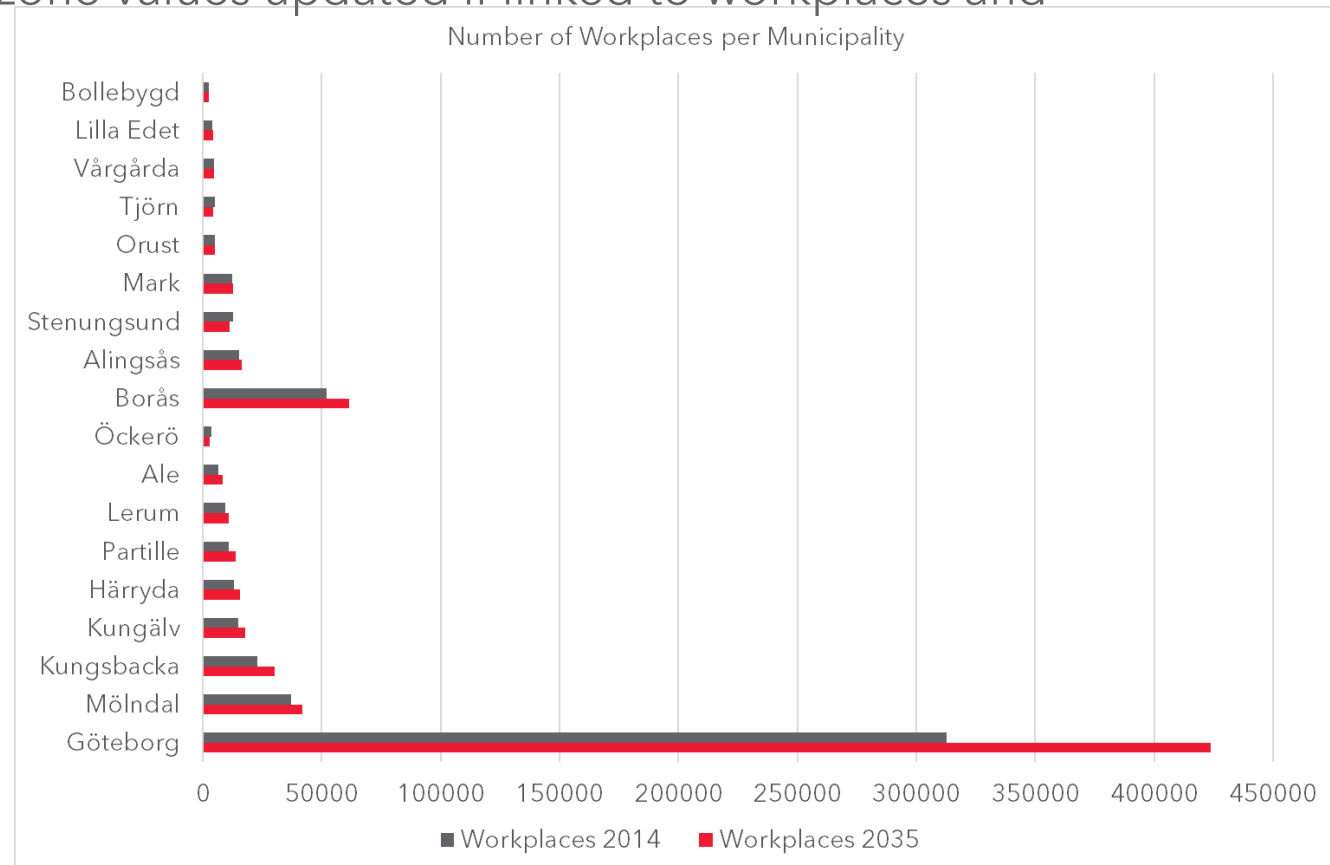
- 30% increase in number of persons and available cars in Göteborg



2. UPDATING FUTURE YEAR PERSON GROUPS

Future Year Workplaces

- ▶ Per zone, directly from projections
- ▶ Other structural zone values updated if linked to workplaces and population



2. UPDATING FUTURE YEAR PERSON GROUPS

Exercise

► Add Urban Project

- Zone **1480030313**

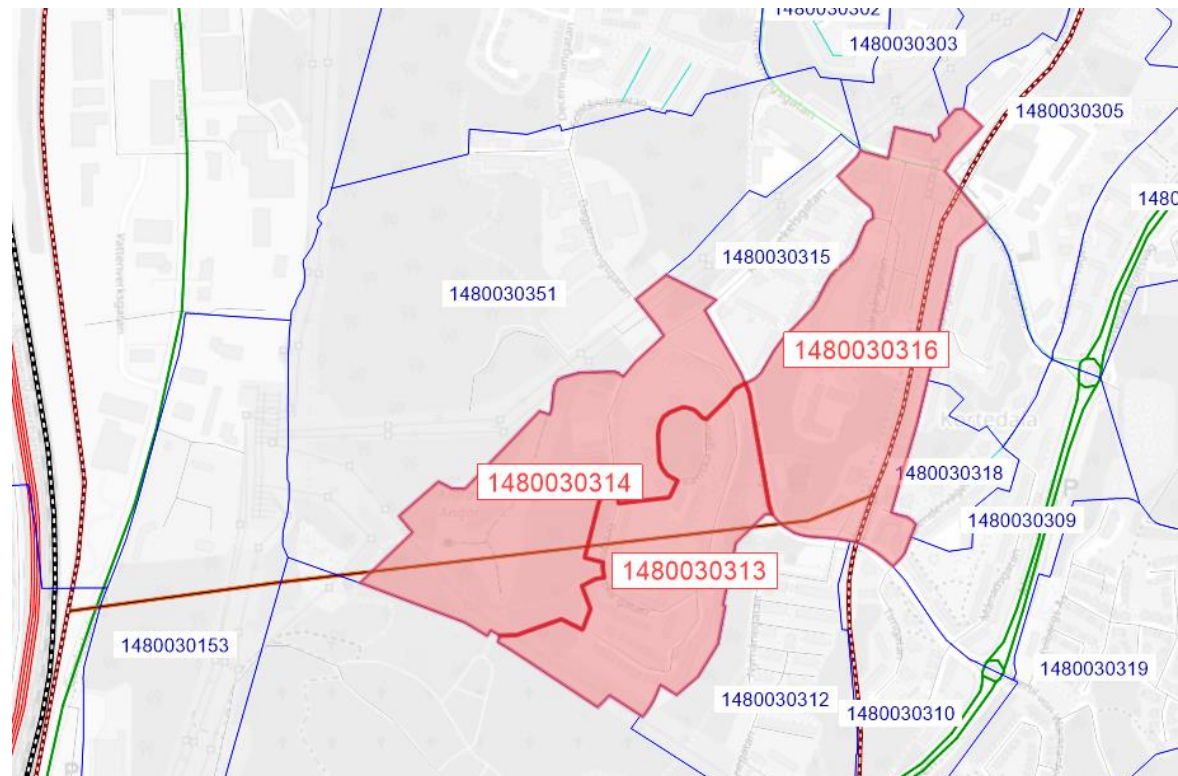
- 1000 dwellings
- 8000 m² office space
→ 320 workplaces
(4 workplaces for 100 m²)

- Zone **1480030314**

- 1000 dwellings

- Zone **1480030316**

- 1500 dwellings
- 4000 m² stores
→ 52 workplaces
(1.3 workplaces per 100 m²)



2. UPDATING FUTURE YEAR PERSON GROUPS

Exercise - Person Groups

► Use Excel file

200518_Person_Groups_zones_Göteborg_2035_Training_Exercise.xlsx

- File contains 2014 Census data (grey tabs), 2035 population, car availability and workplace projections (blue tabs), model person groups for 2014
- File calculates model person groups (dark red tabs) and number of workplaces for 2035 (violet tabs)
- Possibility to add urban projects per zone (green tab)
 - Number of dwellings
 - Average number of persons per dwelling
 - Surface of workplaces
 - Number of workplaces per 100 m²
- All preconfigured, values can be copied directly into Visum Zone list "Export Visum Pop" (red tab) - *Excel file is functional, but not pretty...*

Zon-ID	No Of Dwellings	Person per dwelling	No of inhabitants	Surface Workplaces	Workplaces per 100 sqm
1480030310			0		
1480030312			0		
1480030313	1000	2	2000	8000	4
1480030314	1000	2	2000		
1480030315			0		
1480030316	1500	2	3000	4000	1.3

2. UPDATING FUTURE YEAR PERSON GROUPS

Exercise - Zone Characteristics

- Used for trip purpose attraction values
- Use Excel file
200518_Attractions_Göteborg_2035_Training_Exercise.xlsx
 - File contains 2014 attraction characteristics
 - Some values dependent on population or number of workplaces
 - Needs values from 2035 Person Group Excel file
 - Copy grey marked cells from "Aggregation_Zones_Visum" (orange tab of person group file) to "pop_group_2035+workplaces" (orange tab of attractions Göteborg file)
- All preconfigured, values can be copied directly into Visum Zone list:
"Export_VISUM_2035" (red tab)

\$ZONE:NUM	KOMMUNN	KOMMUNN	VALSTRUCT	VALSTRUCT	VALSTRUCT	VALSTRUCT	VALSTRUCT	VALSTRUCT	VALSTRUCT	VALSTRUCT	VALSTRUCT	VALSTRUCT	VALSTRUCT
R	AMN	A)	D)	G)	L)	P)	Q)	S)	U)	V)	W)		
1384000101	1384 Kungsbacka	1292.4	1504.4	989.0	1982.7	1218.8	2464.0	1542.0	0.0	2179.1	8614.0		
1384000102	1384 Kungsbacka	814.7	1650.3	671.0	494.7	999.6	2892.5	1471.0	0.0	940.8	6698.0		
1384000201	1384 Kungsbacka	293.8	96.1	353.5	80.2	77.6	51.8	0.0	0.0	495.4	612.0		
1384000202	1384 Kungsbacka	135.6	327.1	125.0	65.0	191.1	289.7	0.0	0.0	211.6	944.0		
1384000203	1384 Kungsbacka	93.3	59.3	0.0	54.2	59.1	16.9	0.0	0.0	411.0	261.0		
1384000204	1384 Kungsbacka	123.8	28.4	176.0	16.3	31.0	11.8	0.0	0.0	135.0	262.0		
1384000205	1384 Kungsbacka	35.2	20.9	0.0	33.3	20.1	3.8	0.0	0.0	151.4	98.0		
1384000206	1384 Kungsbacka	249.8	90.4	323.5	69.7	64.4	48.0	0.0	0.0	279.9	663.0		
1384000207	1384 Kungsbacka	29.8	25.5	0.0	82.4	46.2	12.1	0.0	0.0	104.5	280.0		
1384000208	1384 Kungsbacka	45.6	26.5	0.0	47.4	32.9	9.4	0.0	0.0	193.8	195.0		
1384000209	1384 Kungsbacka	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0		

PREPARATION FOR TRAINING EXERCISE 25/05/2020

Exercise Scenario Manager

Questions for preparation of next session

- ▶ Is the model available to all participants?
- ▶ Can participants model from home (license availability)?
- ▶ Are participants comfortable with coding links?
- ▶ Are participants comfortable working with PuT offer (duplicating line, move line route, update time profile)?

- ▶ Two screens would be good

- ▶ All questions positive feedback? → Simple live exercise next webinar
 - Coding is not main point, but how to work with the model's Scenario Manager

THANKS !

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