

Focus session

D3: Greener footprint in tourism

16.00–17.30





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Sustainable travelling as a necessity for environmentally protected areas suffering from over- tourism

Radomíra Jordová and Hana Brůhová Foltýnová

ECOMM, June, 1, 2022

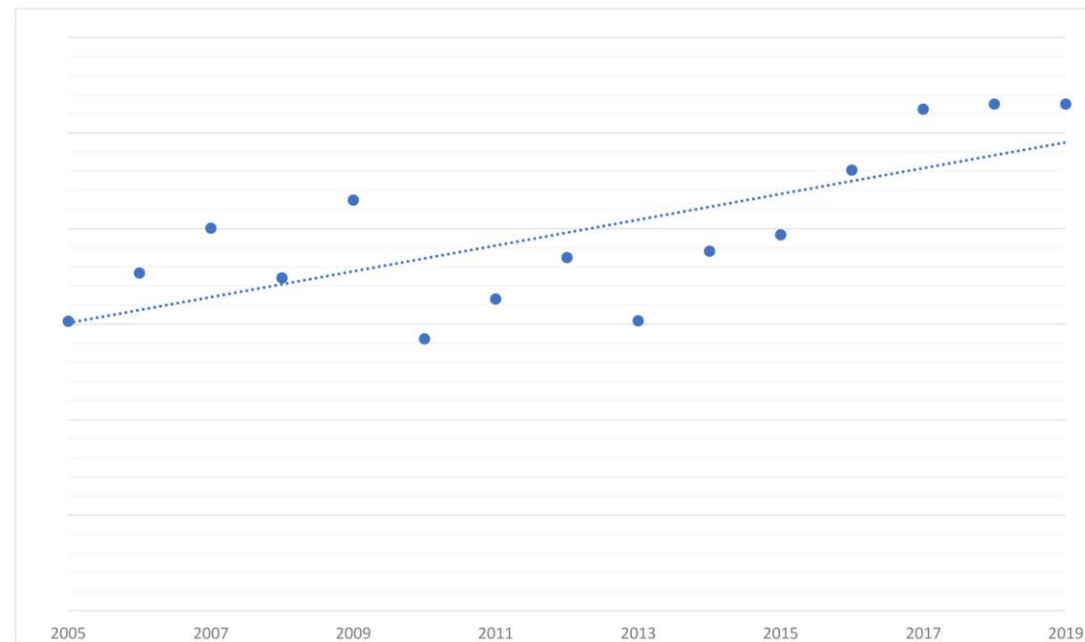


- Growing attendance of National Parks (NP) and Protected Landscape Areas (PLAs)
 - Movement of people in protected areas
 - Infrastructure requirements (transport, services)



Number of tourists in NP České Švýcarsko, 2005-2019

Celkový trend návštěvnosti v NP ČŠ v letech 2005 až 2019



Source: Nagel. R.. Ochrana přírody 5/2020

- **Negative impacts of over-tourism**

- Biodiversity degradation
 - Fragmentation of ecosystems
 - Wild nature, soil erosion
- Waste
- Emissions
- Noise

X



- **Tourism = funding** the nature protection and local business

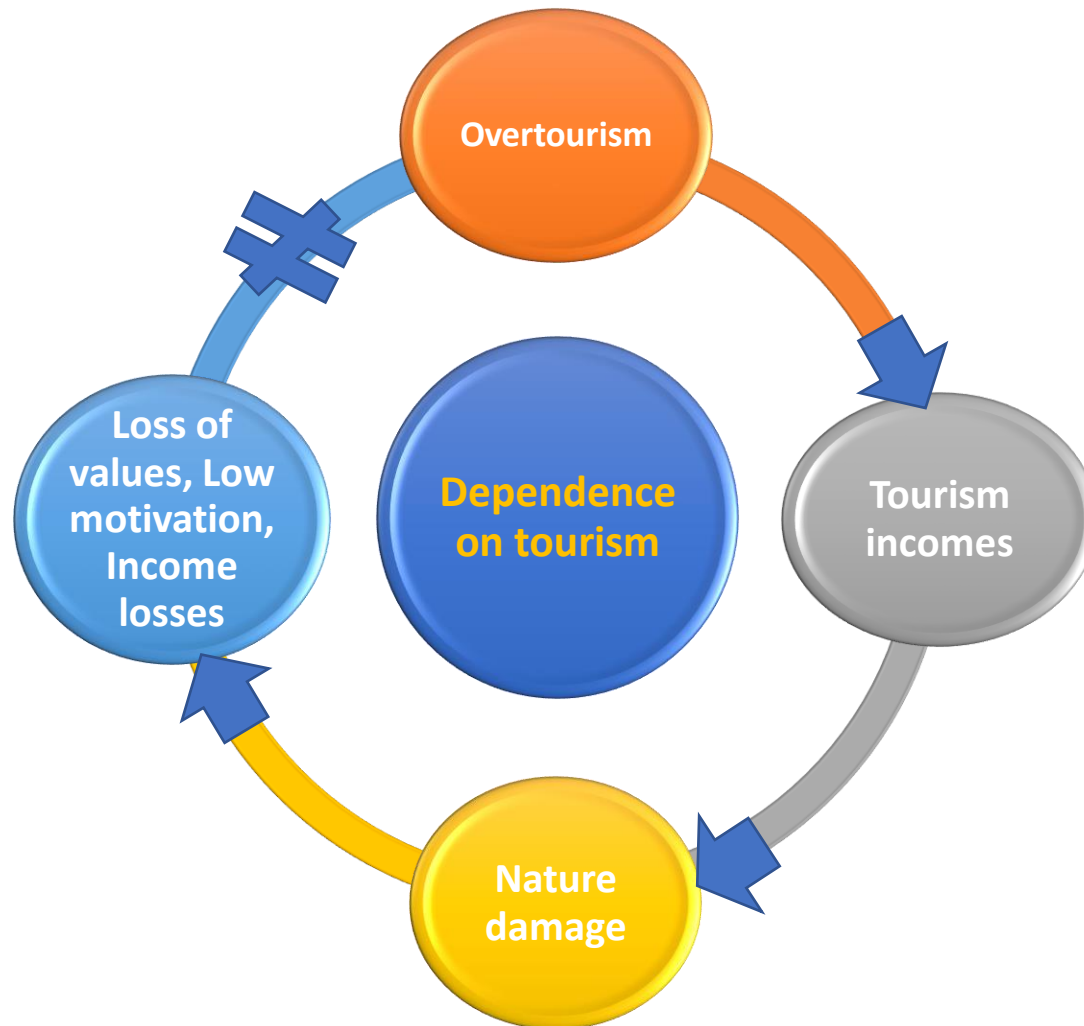
Tourism trap and degradation



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Negative impacts of over-tourism

= Too late, as the regulation has not come in time

BUT

Big role of **VISITOR MANAGEMENT**

AND

Big role of **MOBILITY MANAGEMENT**

For sustainable tourism and mobility



Project description



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MOBESA

Project name

MOBESA - Analysis of alternative solutions for **m**obility planning in **e**nvironmentally **s**ensitive **a**reas

Project duration

03/2020 – 06/2023 (40 months)

Project consortium

- UJEP (coordinator)
- STEM/MARK. a.s. (project partner)

UNIVERZITA J. E. PURKYNE V USTI NAD LABEM



STEM  MARK

Application guarantor

Ministry of Transport. Nature Conservation Agency. KRNAP



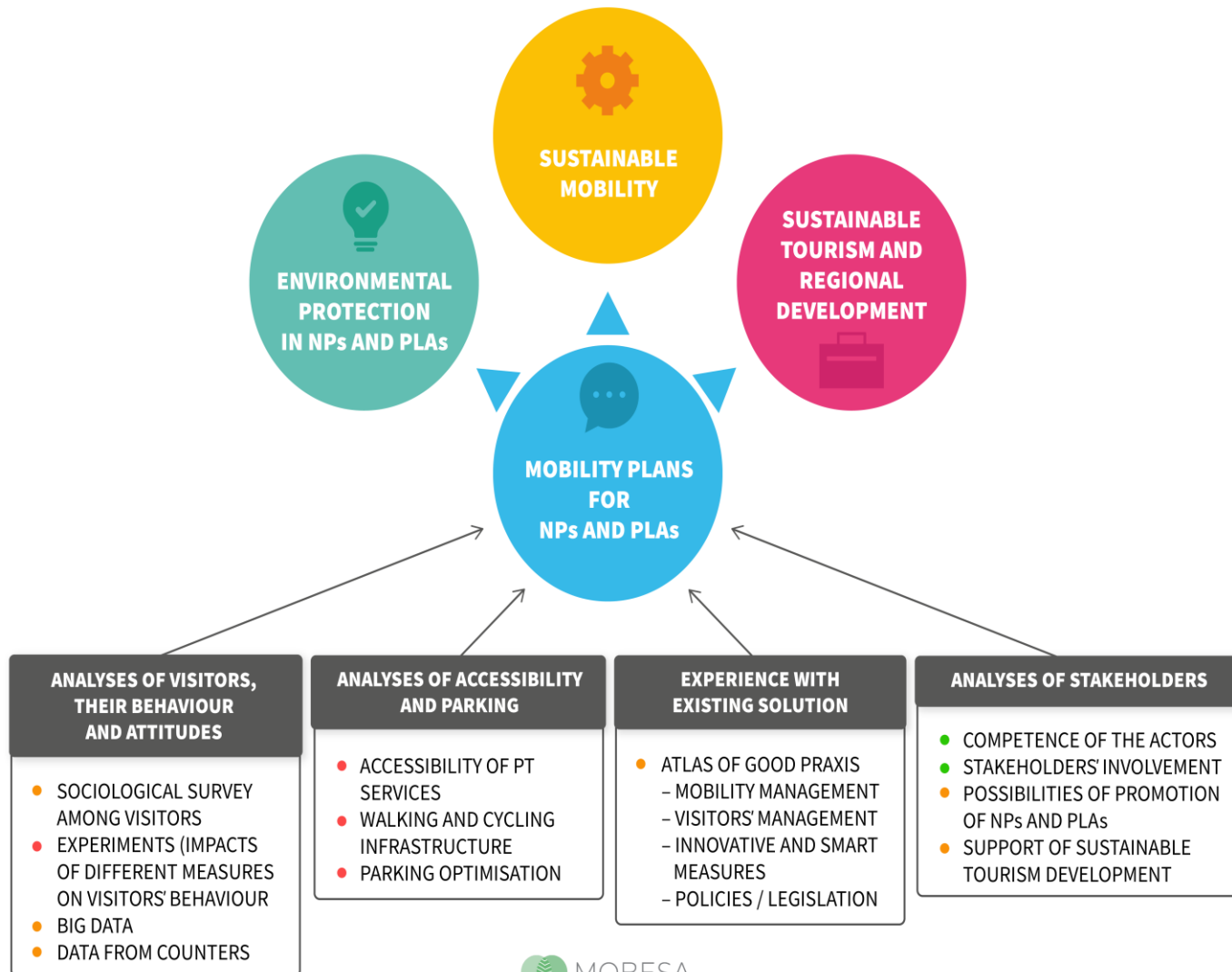
Ministerstvo dopravy



Financial support

- Technological agency of the Czech Republic

T A
Č R



Case study areas



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- NP Czech Switzerland + PLA Labské pískovce
- PLA Giant Mountains
- PLA Moravian karst



Source: Nature Conservation Agency of the Czech Republic
<http://aopkcr.maps.arcgis.com/home/webmap/viewer.html?useExisting=1>



Sociological survey among visitors

Data collection:

Summer 2021: CAPI, August 10–24 (N=1117)

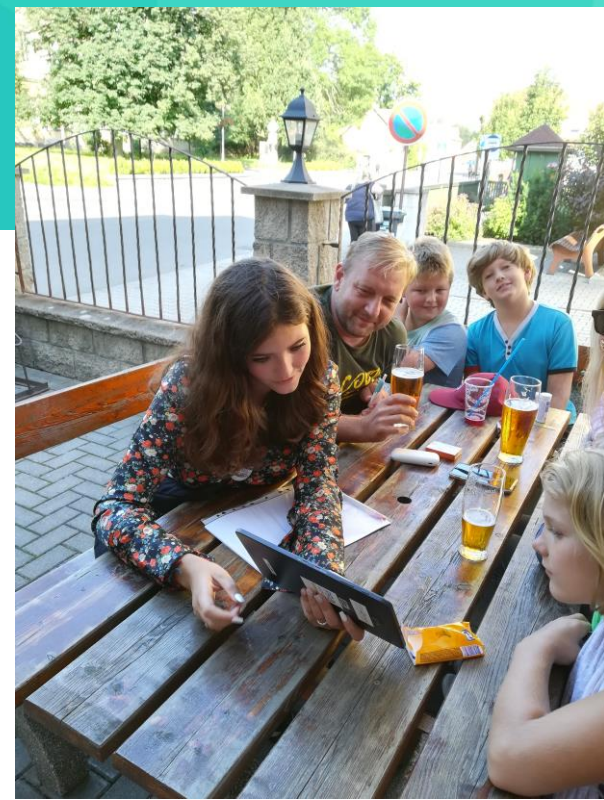
Sample (N=1173):

Domestic visitors (84.6%)

Foreign visitors (15.4%)

4 languages (CZ, EN, D, P)

3 case studies (see the table)



Quota sampling:

- Gender,
- age,
- education,
- length of the stay
- day of the week

		Total		Czech Switzerland	Giant mountains	Moravian karst
		%	N	%	%	%
Day of survey	Working day	51.1	599	50.1	54.4	48.9
	Weekend	48.9	574	49.9	45.6	51.1
Have you ever visited this area (PLA/NP)?	First time	24.2	284	33.3	15.2	19.6
	1-5 times	28.1	330	27.8	23.1	34.4
	More than 5 times	32.2	378	19.5	53.5	28.6
Length of stay	1 day	42.2	495	39.4	35.2	54.7
	1-2 nights	15.3	180	16.0	15.5	14.1
	3-7 nights	37.3	437	39.1	43.1	27.7
	Longer	5.2	61	5.5	6.2	3.5

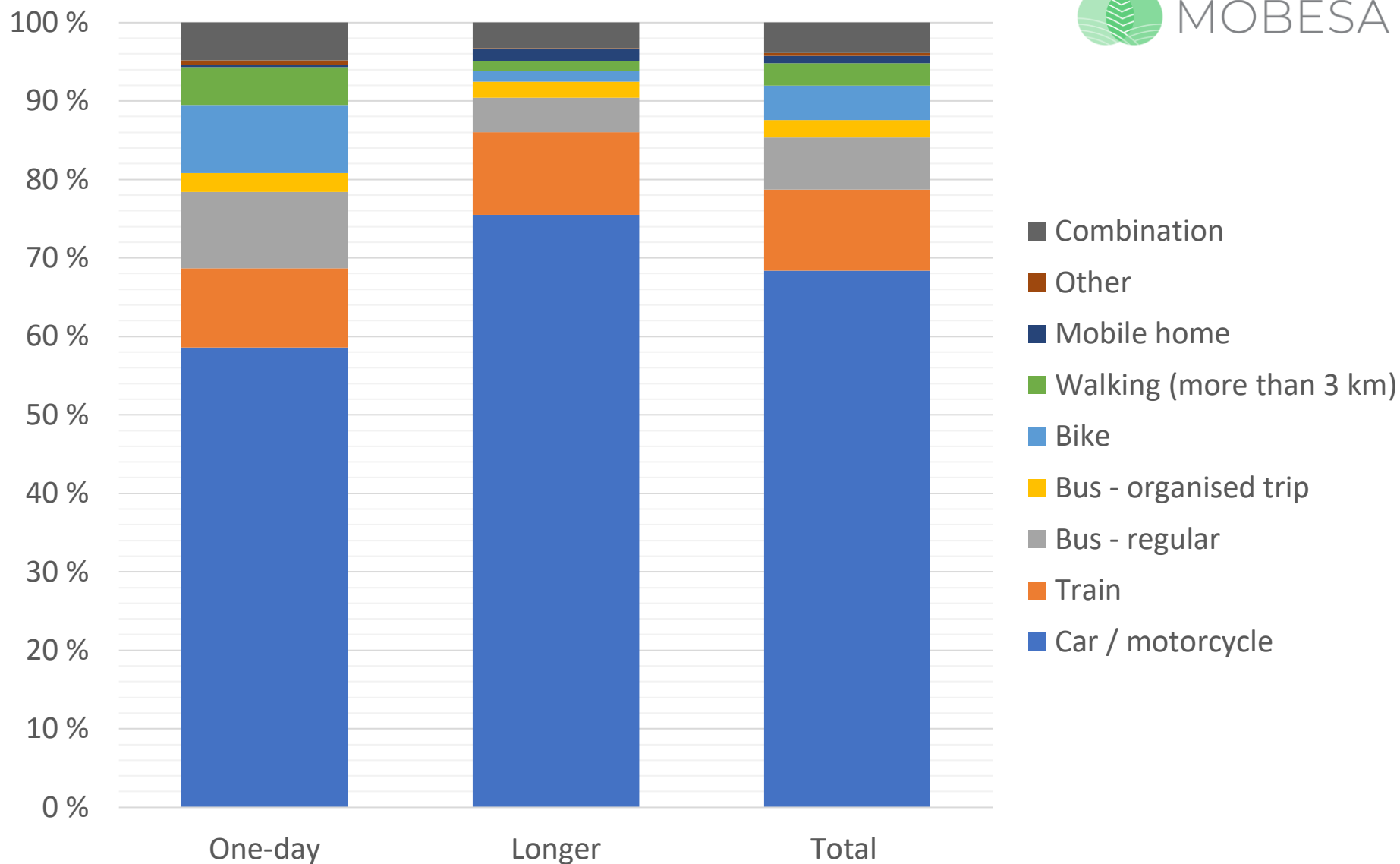
What transport mode have you taken to come here?



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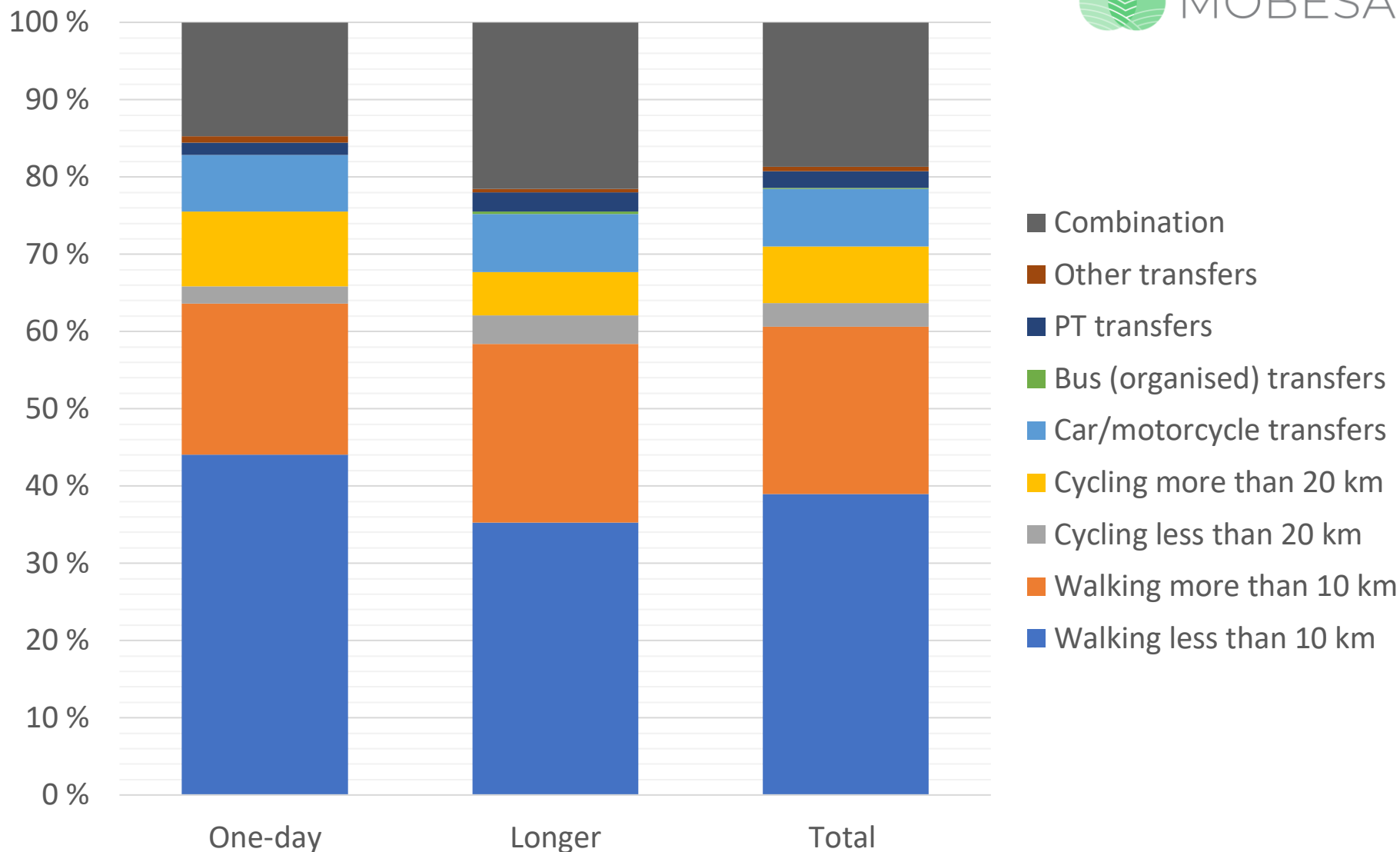
What kind of transfers do you plan to do TODAY?



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Parking fee/day

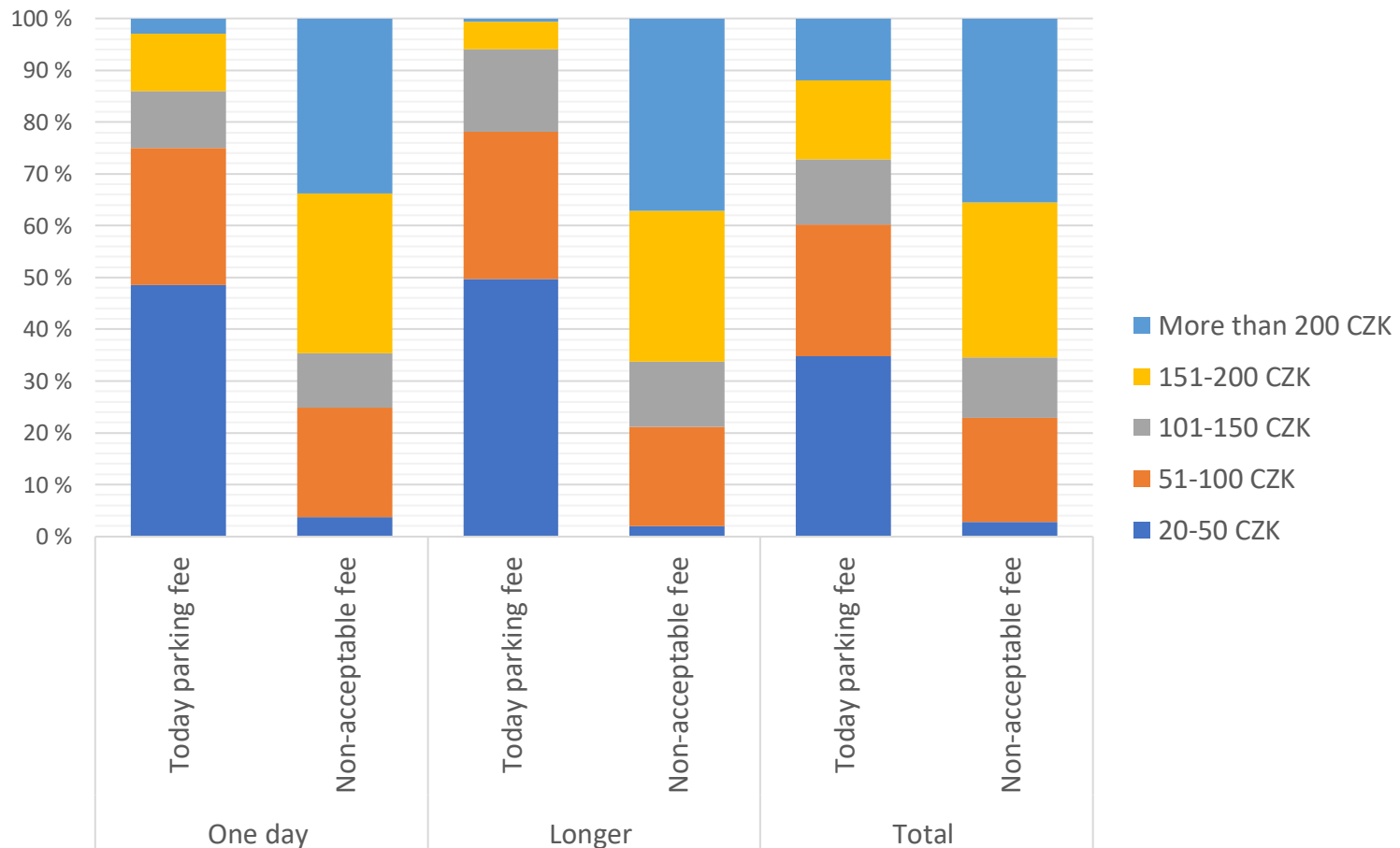


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- No problem to find a parking place
- About ½ paid parking
- Average actual parking fee 90 CZK (3.50 EUR)
- Average fee **which would discourage respondents from parking** 240 CZK (9.50 EUR)



Potential for changing from the car travel



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Measure	Willingness to change	Change for
Higher PT frequency	59,60%	PT
Higher PT speed	57,40%	PT
Lower PT cost or for free	52,50%	PT
More PT stops in PLA	51%	PT
Bicycle to rent at PT stop	46,50%	PT + bicycle
Cycle bus	44,80%	PT + bicycle
E-bicycle to rent at PT stop	41,80%	PT + bicycle



- Further **analyses – factors** influencing willingness to change transport behaviour
- Experiments – **sensitivity** of NP/PLA visitors **on chosen measures** (online survey in November, N=1,000)
- **Analysis of accessibility** of the case study areas by PT
- **Parking analysis**
- Interviews and discussion with **local actors**
- **Inter-Ministerial** working group
- **Guidelines** on mobility plans for NPs / PLAs – June 2023

Conclusions and recommendations

- Combination of **nature protection & tourism & transport** development strategies = choices and limits
- Cooperation with **local stakeholders**, incl. destination agencies and local action groups
- **Visitor and Mobility management** (visitors and residents), including regulation in every PLA



Optimisation of mobility in PLAs

through:

- zoning,
- access management,
- de-seasonalisation
- distribution of tourist flows to various places from the most visited ones
- diversification of activities and mobility options





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THANK YOU FOR YOUR ATTENTION!

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This project is enabled by support from TA CR Grant no. CK01000067 "Analysis of alternative solutions for mobility planning in environmentally sensitive areas".



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BÜRO FÜR VERKEHRSPLANUNG

Tourism Mobility in Carinthia (Austria)

 Federal Ministry
Republic of Austria
Climate Action, Environment,
Energy, Mobility,
Innovation and Technology

klima**aktiv**

mobil



Carinthia - A wonderful place to stay



Before we start: Be inspired!

CARINTHIA
It's my life!



Before we start: Be inspired!

CARINTHIA
It's my life!



Before we start: Be inspired!

CARINTHIA
It's my life!



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CARINTHIA
It's my life!



Before we start: Be inspired!

CARINTHIA
It's my life!



**The great nature is our major capital, thus we
need a mobility that fits to it**

Challenges that we are facing

- **mobility needs** are primarily **met by private cars**
 - Need of arriving with ease and flexibility
 - Lack of public transport
- **mobility patterns have changed**
 - number of car owners ↓
 - number of driving license ownership ↓



Where do we want to go?

CARINTHIA
It's my life!

- Carinthia – a smart and soft mobile destination



What we did ...



- Foundation of **the Tourist Mobility Center of Carinthia** in 2016
- The **strategy** is based on **four pillars**:
 - Arrival by public transport
 - Inclusive last mile offers
 - Local mobility
 - Marketing and communication with stakeholders

The Last-Mile Service: “Bahnhofshuttle Kärnten”



- Solution to cover the last mile
- pick-up and drop-off is available from **19 selected train stations** to more than **6,000 accommodations** and over **250 POIs**
- **One offer for a whole state.** One number, one website
- www.bahnhofshuttlekaernten.at

And on site? Mobility concept Nockmobil

- **call and collect taxi service** - where public transport is not available
- **Nockmobil** (www.nockmobil.at)
- **transport within 60 minutes is guaranteed**
- **combination of information** (bus, rapid transit, call and collect taxi, ship or a combination)

CARINTHIA
It's my life!

Providing simple information and an easy booking process via app or by phone



We love Bikers

- Strong focus on the topic of cycling
- **“Carinthia rent e-bike”** system
 - 1,000 bikes
 - over **50 rental stations**

CARINTHIA
It's my life!



Communication is (almost) everything

- Tourism and leisure facilities are the first and last to come into contact with the guest
- **Mobility coaches** create awareness
- **Coordination and cooperation** with German and Austrian federal railway systems
- **Co-branding campaigns** (bahn.kaernten.at)



Conclusion



- Soft mobility in rural destinations always requires the interaction of many partners
- The isolated consideration of mobility needs destroys synergy effects and makes the mobility system unnecessarily expensive



Connected thinking and acting!

- Launched by the former Federal Ministry of Agriculture and Forestry, Environment and Water Management
- Austrian **National Programme to promote sustainable Mobility Management**
- Implementation of the Austrian Climate Strategy and the EU Climate and Energy Package

The five pillars of klimaaktiv mobil



Advisory programmes

Free assistance with the development, implementation and submission of financial support for climate protection measures for climate-friendly mobility.



Financial support programmes

Financial support for companies, cities, communities and associations for active mobility and mobility management, alternative transport systems, fleet conversions and e-mobility.



Awareness raising

Information campaigns on the advantages of climate-friendly mobility: cycling, public transport, fuel-saving training and alternative vehicles and drives.



Education and certification schemes

Training and certification: cycling trainers, eco-driving trainers, e-mobility experts, klimaaktiv mobil driving school, bike technician and much more.



Partnership and awarding

Awards for companies, municipalities and associations as klimaaktiv mobil project partners by the Minister of Climate Action.

Klimaaktiv mobil

mobility management for tourism and leisure objectives

- **Reduction of CO₂-emissions**
by
- Consulting and supporting
to
- **Submit** climate friendly mobility projects
- **Promote** public / alternative means of transport
- **Create** new attractive environmental-friendly offers for guests

Klimaaktiv mobil network

- 2021:
 - Around 52 million EUR funding
 - > 220 projects
 - 9,100 t CO₂ saved per year
- In total:
 - 21,000 projects
 - 6,600 project partners
 - 350,000 t CO₂ /year



Klimaaktiv mobil best practice



© Papin Sports

Papin Sport Bike rental

Implemented in 2017
Save **650 t CO₂** per year



© Markus Rohrbacher

Radstadt Tourismus Hiking bus

Implemented in 2022
Save **300 t CO₂** per year



© Tirol Werbung, Herbig Hans

Tirol auf Schiene Awareness building campaign

Implemented in 2014
Save **8.800 t CO₂** per
year

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BÜRO FÜR VERKEHRSPLANUNG

klima**aktiv** mobil mobility management
for tourism and leisure



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Forum Virium Helsinki

Forum Virium is an innovation company of the City of Helsinki. We aim to build Helsinki into the most functional smart city in the world in collaboration with companies, the scientific community and residents

FORUM
VIRIUM
HELSINKI

ECOMM Turku 31.5. - 2.6.2022

A Maritime MaaS API for more dynamic ticket sales and accessible archipelago services

*Helmi Tuori • Project Manager
Forum Virium Helsinki*

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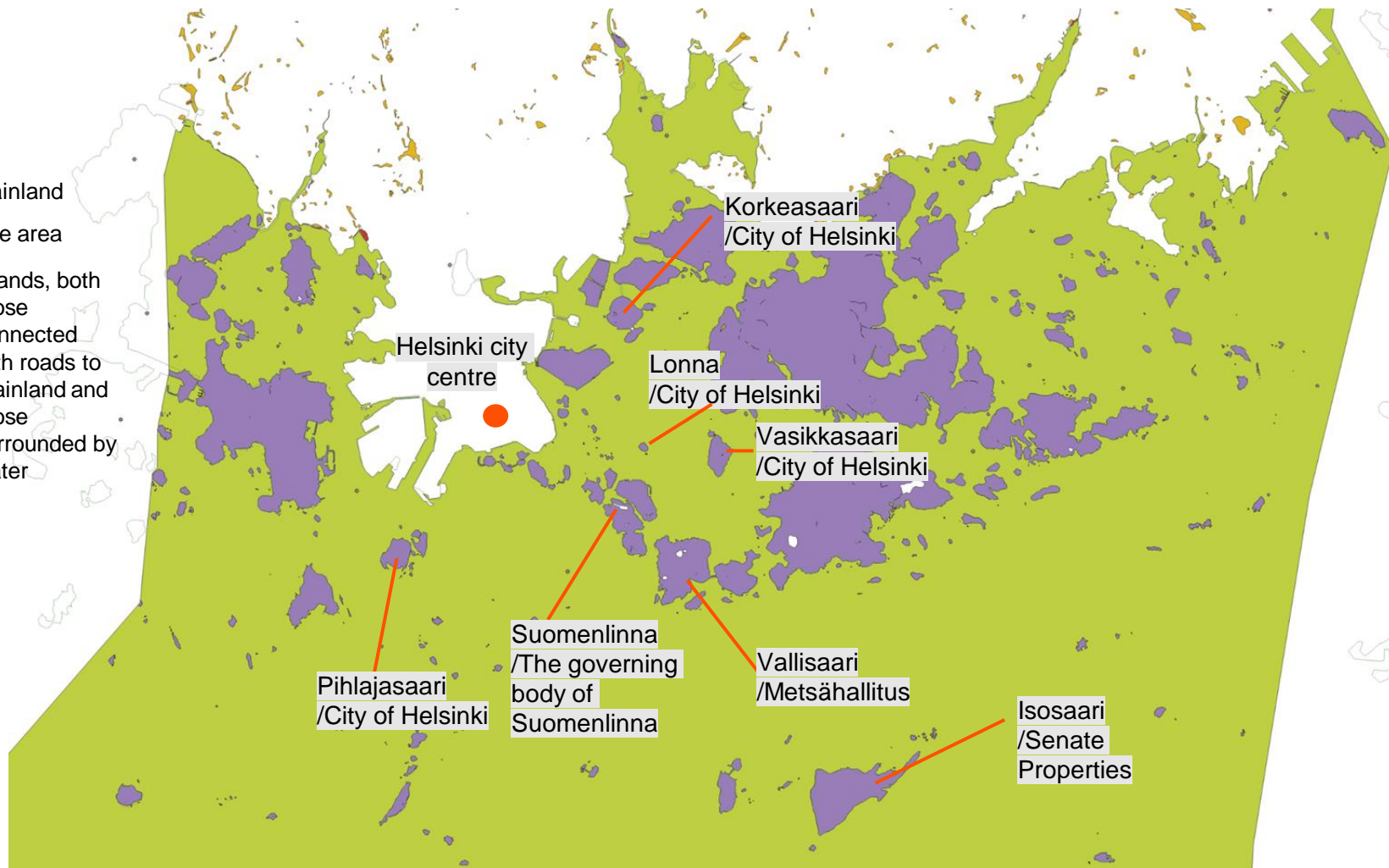
Mobility as a Service (MaaS) is a growing technology that provides seamless integration of mobility services through user-friendly platforms.

MaaS facilitates integrated travel options via various modes and actors including public transport, car-sharing, ridesharing, taxis, bicycles and micromobility.

MaaS offers the potential to reduce the reliance on private motor vehicles for travel, in turn helping to address many modern problems faced by cities throughout the world, including climate change, congestion, pollution, transport poverty and social equity issues.

Citation from ICOMAAS conference's Call for papers, Tampere, Finland | 29.-30.11.2022

- Mainland
- Sea area
- Islands, both those connected with roads to mainland and those surrounded by water



General visitor statistics in Helsinki during summer season 2019

In year 2019 (last “normal” year prior Covid-19) TAK Research ´ s Visitory Service collected data on total amount of visitors* (both domestic and international) in Helsinki as follows:

- May-June: 462 000 (increase 6% to previous year 2018) visitors. Roughly 50/50 division in shares of domestic and international visitors
- July-August: 535 000 (^ 10%). Roughly 50/50 division in shares of domestic and international visitors. Interestingly a 19% increase in domestic visitors compared to previous year.
- September-October: 436 000 (^6%), ca. 50/50 division in shares of domestic and international visitors.

* Based on statistics on overnight stays (bednights)



Harakka, Island Harakka

Water traffic features in Helsinki

- **Waterborn traffic season** begins after the breaking up of ice in April/May and lasts until September/October.
- In scheduled ferry traffic, based on visitor statistics (sold tickets), **high season** is clear: the months of July and August.
- Many Transport Service providers operate **in several transportational categories**. In addition, some transport operators also function in the role of a venue coordinator on the islands and manage its service portfolio together with the tourism entrepreneurs.



Korkeasaari, Korkeasaari Zoo Island

Water transport modes in Helsinki

In Helsinki region the traffic to the archipelago island venues is organised as follows:

- **ferry as public transport** to Sea Fortress Suomenlinna, which is also a Helsinki City district
- **ferry as scheduled, on-route transport.** Transport Service Providers participate in tendering process to claim the exclusive right for certain routes. City of Helsinki is only one of several island owners and tendering processes are organised by the owner in question.
- water transport **as on-demand traffic**
- water transport **as charter traffic**



Harakka, Island Harakka

Motion frame behind Maritime MaaS ticket sales API

- City of Helsinki's **Maritime Strategy**:
 - better accessibility of island venues,
 - easier access to maritime services
- **Digitalisation effort** of travel trade:
 - a low threshold & scalable digital solution to enable more dynamic ticket sales of water transport services (ferries)



Bridge to Mustikkamaa Island, on the way to
Korkeasaari Zoo

Goals with Maritime MaaS project

- **Ticket sales API** for scheduled, on-route water transport & management model to support its lasting usage
- **Operator-independent ferry ticket sales** & better permeability of traffic information to end users
- **API inspired business ecosystem** to enhance business opportunities: better viability through the use of API to amplify the willingness and insights to innovate and invest in new business



Maritime MaaS Project in a nutshell

- **Funding** for year 2020 (Proof of Concept), 2021 implementation into production, 2022 facilitation of API related business ecosystem from City of Helsinki's funding instruments
- **Technical partnering** with both City of Helsinki (Department for Culture and leisure) and private companies (2020 Reaktor, 2022 Montel Intergalactic)
- As project's **non-funded cooperative partners** ferry operators and Maas operator
- Project's **contributions** also in City's maritime traffic and general API ecosystem related development work as case example and source of MaaS related insight

An aerial photograph of the Helsinki harbor and city skyline. A large white cruise ship with "SILJA LINE" written on its side is docked at a pier. The city is built on islands and peninsulas, with a mix of historic and modern architecture. A Ferris wheel is visible in the middle ground. The water is calm, and the sky is clear.

Maritime MaaS API's contribution to greener footprint in tourism?

Trends in travel industry that match well with MaaS

- Digitalisation of travel services: digital services to complement service offering and to facilitate service production processes
- Knowledge based, data-driven business development: increase of abilities to use data as a source of insight on the service production, its efficiency and means to innovate now business based on gathered use data
- Customer vigilance on sustainability issues: awareness of climate change and willingness to minimise own carbon footprint through own consumption, e.g. through favoring of nearby travel destinations



Pihlajasaari, Island Pihlajasaari

Benefits with opening APIs

- 1 Opening ticket sales API's contribute to development of mixed travel modes
 - scheduled and on-demand traffic can coexist and give transport service providers means to optimise traffic offering almost real-time
- 2 Enhancing the abilities to collect and share ticket sales data and combine it with use data
 - transport service providers' insight on user behaviour grows, abilities to use data for fleet management and demand anticipation develop



- 3 Open API's enable new forms of business cooperation between transport service providers
 - instead of maintaining overlapping offering there emerges the possibility to optimise route & fleet capabilities on need based perspective and in cooperation
 - better built and need compatible services attract more users but in a better managed manner (business and sustainability wise)



Suomenlinna, Suomenlinna Sea Fortress

Optimisation of traffic based on retrieved data:

- traffic **can be adjusted** to answer real client demand
- transport service providers are **able to react** on short term user fluctuation as well as **proactively anticipate** demand fluctuation in traffic management
- **better understanding** of the potential levels of wear caused by the registered amounts of users visiting the venues
- less unnecessary emissions due to data-based, **optimised traffic management**

”

But there is still huge traffic to the islands, would it not be more efficient to just enforce the use of **electric vessels**?



Certainly.

The API based solution however has made it possible to pilot and show in practise, how open API´s together with data usage can help plan and develop the operator specific traffic management.

In order to be able to use data, we need to ramp up the data capabilities (both technical and operational) on transport service provider level.

We see data based traffic management as one of the key factors to greener and more sustainable tourism.

With our Maritime MaaS API project we have been able to contribute to this development on a practical level - on the side we've also made it possible to start MAASing within the maritime service field.

Thank you!

For more information, please contact:
Helmi Tuori, helmi.tuori@forumvirium.fi, tel. +358 40 617 5333

Climate friendly travel in the visiting sector – examples from Småland and Öland

"Climate friendly travel in the visitors sector" is a collaborative project between Astrid Lindgrens World, The Glass Kingdom, Region of Kalmar County and Öland, partly financed through the Regional European Development Fund. More information can be found [here](#).
regionkalmar.se



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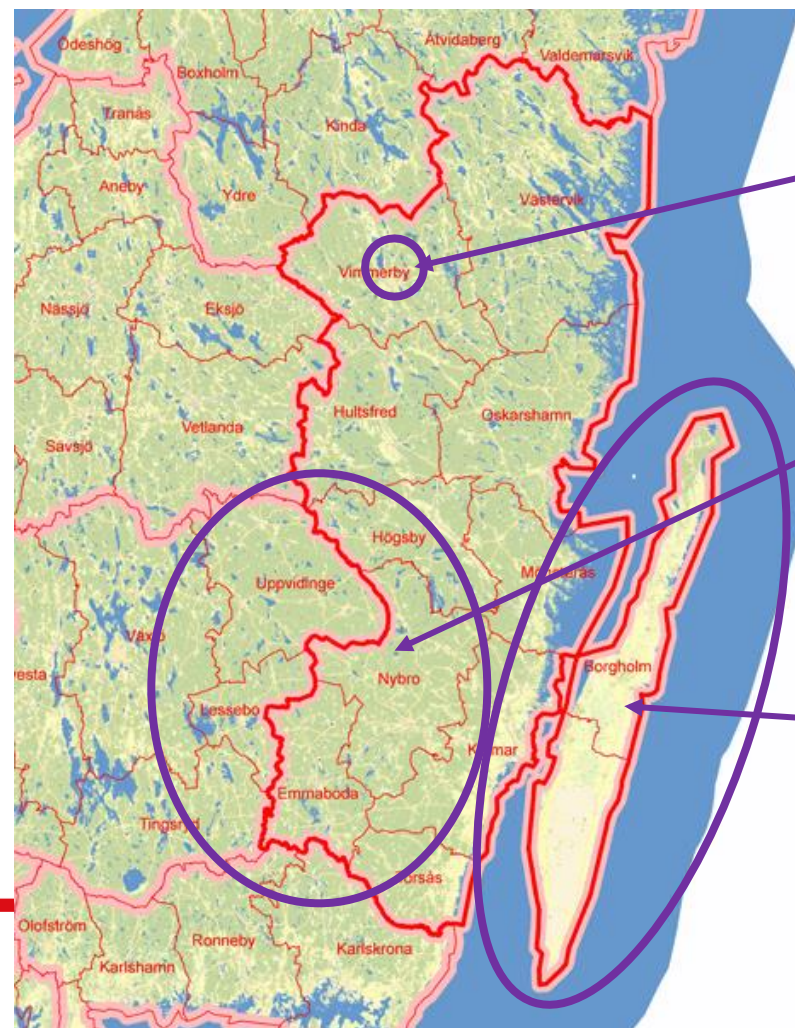


A growing visitors sector, available for everyone, and without net emissions of green house gases from transports

- Increase the possibilities for those without car to travel climate friendly to, from and within the region of Kalmar
- Make Småland and Öland a good example as a sustainable region to visit
- Increase the knowledge among companies about the climate impact of tourism travel and how climate friendly alternatives can increase the attractiveness of the region



Test, evaluate and disseminate alternatives to travel to, from and within Astrid Lindgren's World, the Kingdom of Glass and Öland.



Astrid Lindgren's World

Glasriket

Öland



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Region Kalmar län



On a trip in the Kingdom of Glass

Your trip to the Småland Glass Region starts here. Here we guide you to the magic of the cabins, the adventures in nature, the local flavors and the shopping. Welcome to Glasriket!



NYBRO
KOMMUN



Lessebo
kommun



Emmaboda
kommun




UPPVIDINGE
KOMMUN



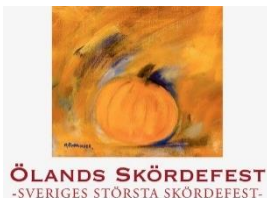
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Region Kalmar län



Solens och vindarnas ö - en plats där minnen föds!



Kalmar kommun
WWW.KALMAR.SE



Mörbylånga
kommun



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Region Kalmar län

Test traveller

Mission: to travel with climate friendly modes during one week and interview visitors and destinations.

- By train, regular bus, on-demand bus, bike, bicycle ferry

Findings:

- It is possible – but good planning is necessary. Delays or cancelled busses can be a big deal...
- Most tourists didn't think of using another mode than their private car...
- ...but, they are open to test other modes if they are improved
 - Better bicycle infrastructure
 - Increased bus frequency
- The destinations wishes for better bicycle infrastructure, more charging stations for electrical cars and bus stops closer to their place

Project idea

Test different methods, concepts and actions in the three destinations to:

1. Increase knowledge and remedy bottlenecks for climate friendly travelling
2. Promote climate friendly and attractive alternatives for door-to-door trips
3. Communicate and marketing existing climate friendly alternatives
4. Increase knowledge among entrepreneurs



Started in January 2020... – ...immediate change of plans...

Year 1 2020:

Summer: no focus on promoting travelling, all activities put on hold

Autumn: Decision to not test a hop-on-hop-of-bus in Glasriket – a diversity of climate friendly travel modes to be developed

Astrid Lindgren's World closed almost all season

Year 2 2021:

Summer: Focus on developing and promoting bicycle routes – not public transport

Autumn: train campaign with SJ (train operator) launched in Glasriket and Astrid Lindgren's World

National tourism grew in Kalmar Region

Bike tours in Glasriket

- Mapping of cyclable routes in Naturkartan
- Contacts with bicycle renters, existing and those wanting to establish new services
- Forming route offers with renting, accommodation, food, etc.
- Now: exploring how to target groups together with entrepreneurs

2 days adventure in northern Glasriket



regionkalmar.se

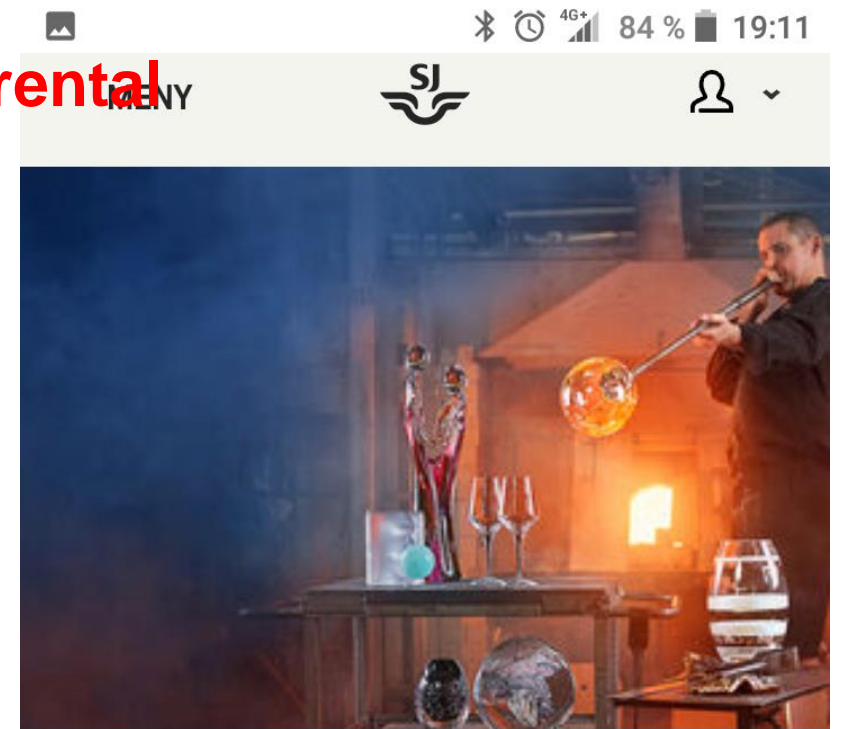


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Experience Glasriket with train and fossil free car rental

- Campaign with SJ and Hertz in autumn 2021
- Train to three main stations with rented car to three chosen accommodation sites
- Promotion during the the Harvest festival in Öland late September
- Christmas lightning at Kosta glass factory mid November
- Mutual marketing campaigns



Upplev Glasriket med SJ och Hertz

Bland glödande ugnar, djupa skogar och trolska vattendrag finns ditt Glasrike, redo att upplevas. Ta tåget till Kalmar, Nybro eller Växjö och därifrån en hyrbil rakt in i Glasriket.

Med [Glasrikets nya Ruttplanerare](#) skräddarsyr du din egen upptäcktsresa mellan hantverk, kultur, natur och

Glasriket

Öland Harvest festival – bus tours and cycle routes

- Promotion of cycle routes including bicycle rental in autumn 2021
- Locally customized traffic information to decrease congestion at certain roads
- Hop-on-hop-off bus during autumn festival
- Bus route with guide and lunch at Öland spirar in May – **fully booked!**



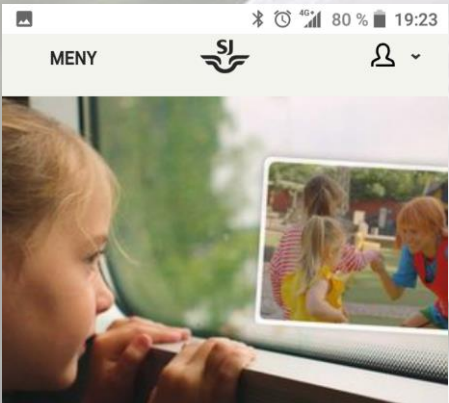
Öland – electric car sharing "dELbilspoolen"

- Research to establish the existing car sharing service in Kalmar across the sea
- Pilot to open up the service for visitors – at present it's available for long term users
- Collaboration with the local bank, municipalities and larger companies
- 2 cars planned for summer 2022 at the main towns



Astrid Lindgrens värld – come by train!

- Campaign with SJ – discounts on trip and accomodation
- Highlighting travel information about climate friendly modes
- Improving signage to the train station



Ta tåget till Astrid Lindgrens Värld!

Att åka tåg tillsammans är ett mysigt sätt att umgås hela familjen. Och väl framme är alla utvilade för en ny spännande resa – för ett besök i Astrid Lindgrens Värld är som att resa genom hennes berättelser, fast på riktigt. Och det bästa av allt, tåget går ända från Astrid Lindgrens Världs egen



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Region Kalmar län

Findings and experinces from the project

- New knowledge gained among business developers, tourism planners and entrepreneurs about transport planning
- Collaboration between destinations to increase the value of the entire region
- New services created or increased: bike rental, bus routes, car sharing service, fossil free rental cars
- Climate friendly travel packages created with transport, routes, accomodation, food and activities
- Mapping of shortages for charging stations for electric cars
- There's an enthusiasm about climate, entrepreneurs seek knowledge and reflect on "what's in it for me"
- The destinations play an important role to support small companies in organisational structures, increase of knowledge, etc.

Thank you!
Contact: Caroline Mattsson
caroline.mattsson@tivector.se



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