

Who is waiting at the gate? An analysis of European passengers

DATASET2050 (D3.1 & D3.2)
Ulrike Kluge



>> *Passenger at the centre*

- > Understanding current and future European transport system from **passengers' perspective**
- > Gaining insights into passengers' **expectations, needs, requirements** and **specific travel behaviour**
- > **Door-to-door** focus

>> *Data-driven approach*

- > Analysis of **existing data** on passenger demand and travel behaviour
- > Consideration of future demand changes using both qualitative and quantitative data

>> *Development of passenger profiles (WP3)*

- > Six **current** and **future passenger demand profiles** and respective archetype journeys (2014 & 2035)

Passenger characteristics

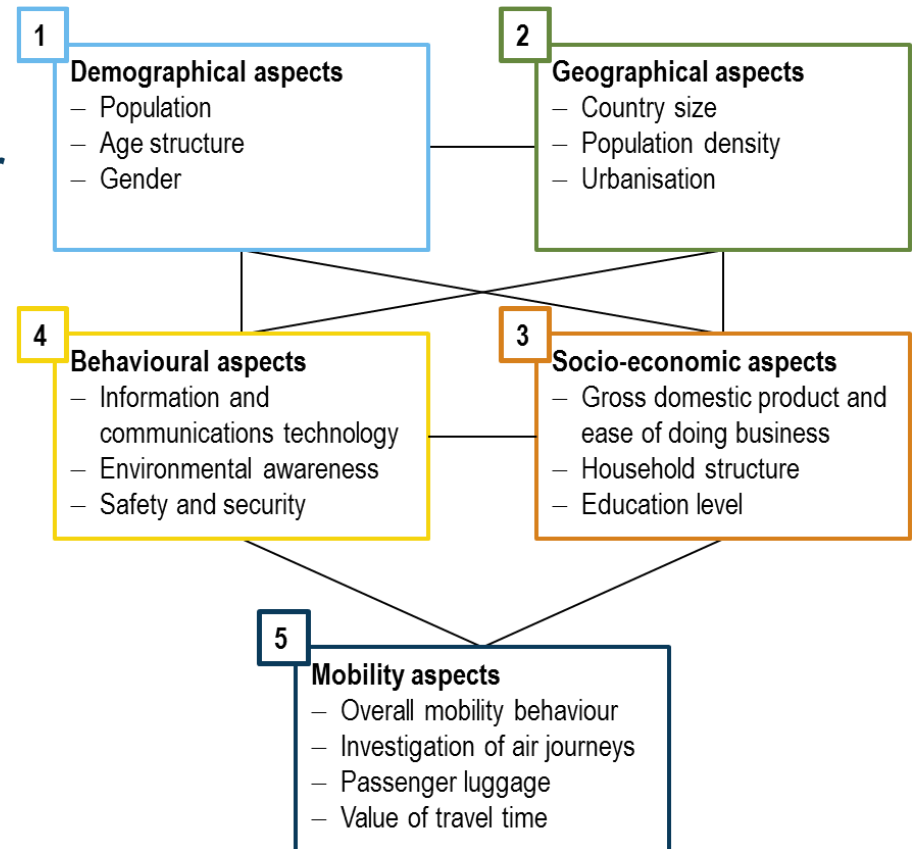
Influenced by various factors

>> **Passengers' (air) transport demand and travel behaviour**

> Depiction of demand for mobility in general and for air transport in particular

> Influenced by **various factors**:

- i. Demographical aspects
- ii. Geographical aspects
- iii. Socio-economic aspects
- iv. Behavioural aspects
- v. Mobility aspects



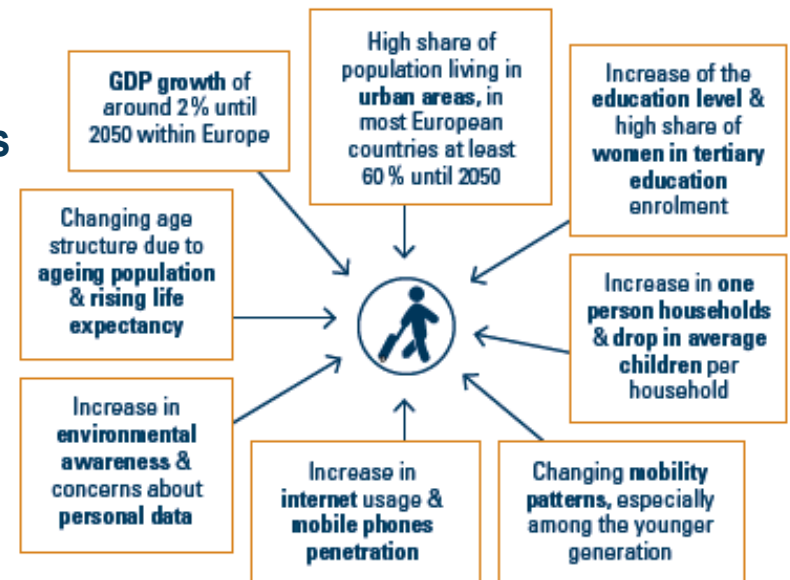
>> **Current status and future development of passenger characteristics**

>> **Interdependencies between factors**

>> Passenger demand profiles

> Identification of **six current** and **six future** passenger demand profiles

1. Analysis of European **data** (EU28 + EFTA)
2. Using **existing** studies on passenger profiles
3. Characterisation according to
 - > Main travel purpose
 - > Age group and income level
 - > Usage of ICT
 - > Length of stay
 - > Travel activity and travel party size
 - > Luggage requirements
 - > Value of time
 - > Access mode choice
 - > Etc.



Future development of demand drivers (eMarketer (2015), ESPAS (2015), Eurostat (2016), Euromonitor International (2013), ifmo (2013), OECD (2008), OECD (2011), PwC (2015), UN (2015), World Business Council For Sustainable Development (2015))

Exploring interdependencies between demand drivers

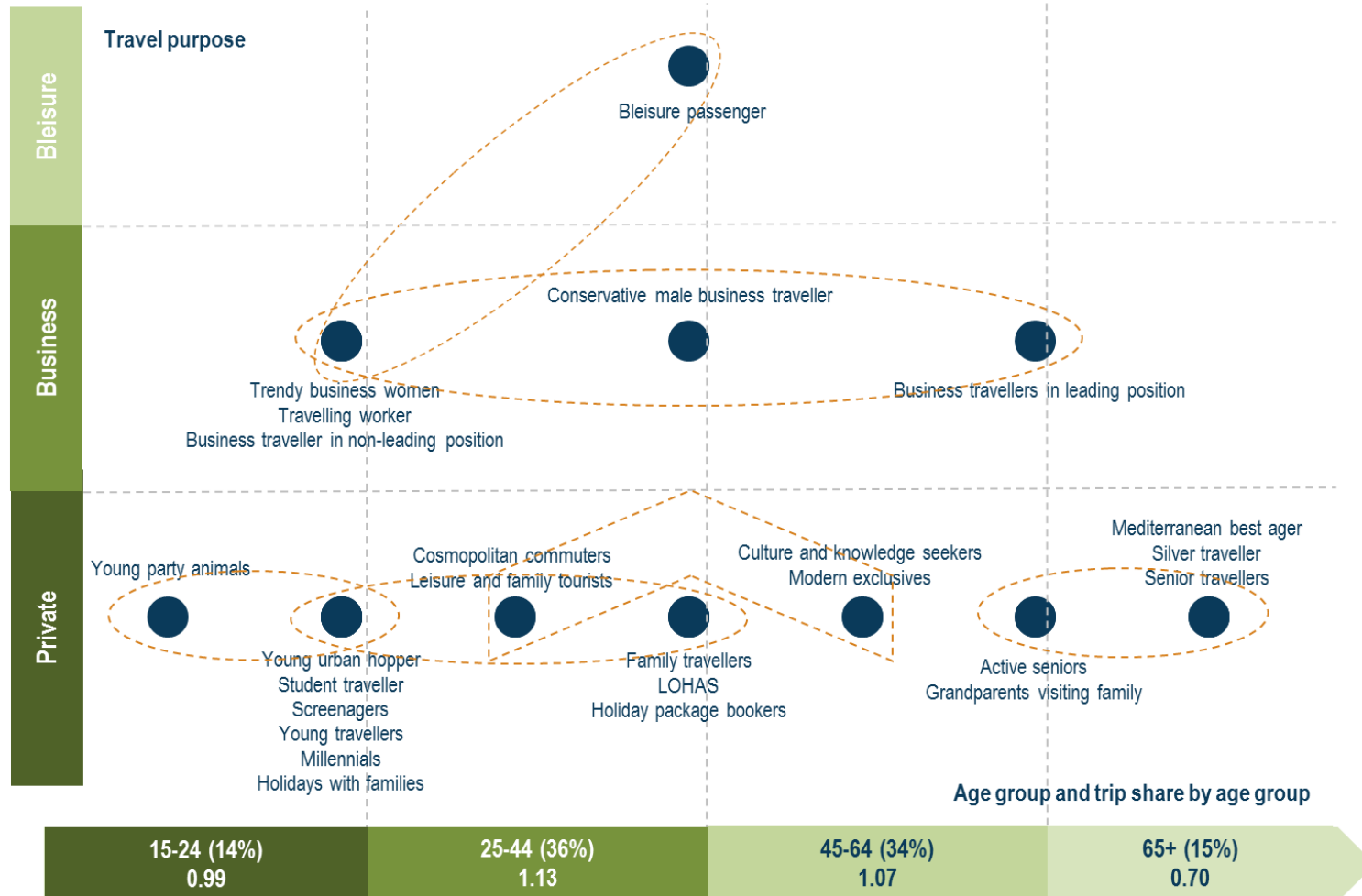
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- The diagram illustrates a conceptual model for Passenger_Air_Transport_Demand, showing relationships between various factors and the demand for air travel. The model is structured as follows:
- Income** (R² 0.22) has a positive relationship with **Value of Time** (R² 0.22) and a negative relationship with **Education Level** (R² 0.22).
 - Education Level** (R² 0.22) has a positive relationship with **Women's tertiary Enrollment** (R² 0.22) and a negative relationship with **Working Women** (R² 0.22).
 - Women's tertiary Enrollment** (R² 0.22) has a positive relationship with **Working Women** (R² 0.22).
 - Working Women** (R² 0.22) has a positive relationship with **Childbirth Age** (R² 0.22).
 - Childbirth Age** (R² 0.22) has a positive relationship with **Children per Household** (R² 0.22).
 - Children per Household** (R² 0.22) has a positive relationship with **Travel for business Purposes** (R² 0.22).
 - Travel for business Purposes** (R² 0.22) has a positive relationship with **Passenger_Air_Transport_Demand** (R² 0.22).
 - Environmental Awareness** (R² 0.22) has a positive relationship with **GDP Growth** (R² 0.22).
 - GDP Growth** (R² 0.22) has a positive relationship with **Endogenous Shocks** (R² 0.22).
 - Endogenous Shocks** (R² 0.22) has a positive relationship with **Passenger_Air_Transport_Demand** (R² 0.22).
 - Business Model Innovation** (R² 0.22) has a positive relationship with **Changing Mobility Patterns** (R² 0.22).
 - Changing Mobility Patterns** (R² 0.22) has a positive relationship with **Substitution in Transport** (R² 0.22).
 - Substitution in Transport** (R² 0.22) has a positive relationship with **Emerging Technologies** (R² 0.22).
 - Emerging Technologies** (R² 0.22) has a positive relationship with **Data Security Concerns** (R² 0.22).
 - Data Security Concerns** (R² 0.22) has a positive relationship with **Births** (R² 0.22).
 - Births** (R² 0.22) has a positive relationship with **Population** (R² 0.22).
 - Population** (R² 0.22) has a positive relationship with **Urbanization** (R² 0.22).
 - Urbanization** (R² 0.22) has a positive relationship with **Geographical Location** (R² 0.22).
 - Geographical Location** (R² 0.22) has a positive relationship with **Life Expectancy** (R² 0.22).
 - Life Expectancy** (R² 0.22) has a positive relationship with **Aging Population** (R² 0.22).
 - Aging Population** (R² 0.22) has a positive relationship with **Number of single Person Households** (R² 0.22).
 - Number of single Person Households** (R² 0.22) has a positive relationship with **Travel for private Purposes** (R² 0.22).
 - Travel for private Purposes** (R² 0.22) has a positive relationship with **Deaths** (R² 0.22).
 - Deaths** (R² 0.22) has a positive relationship with **Population** (R² 0.22).
 - Passenger_Air_Transport_Demand** (R² 0.22) is the central node, influenced by all other factors.

Passenger cluster literature review.

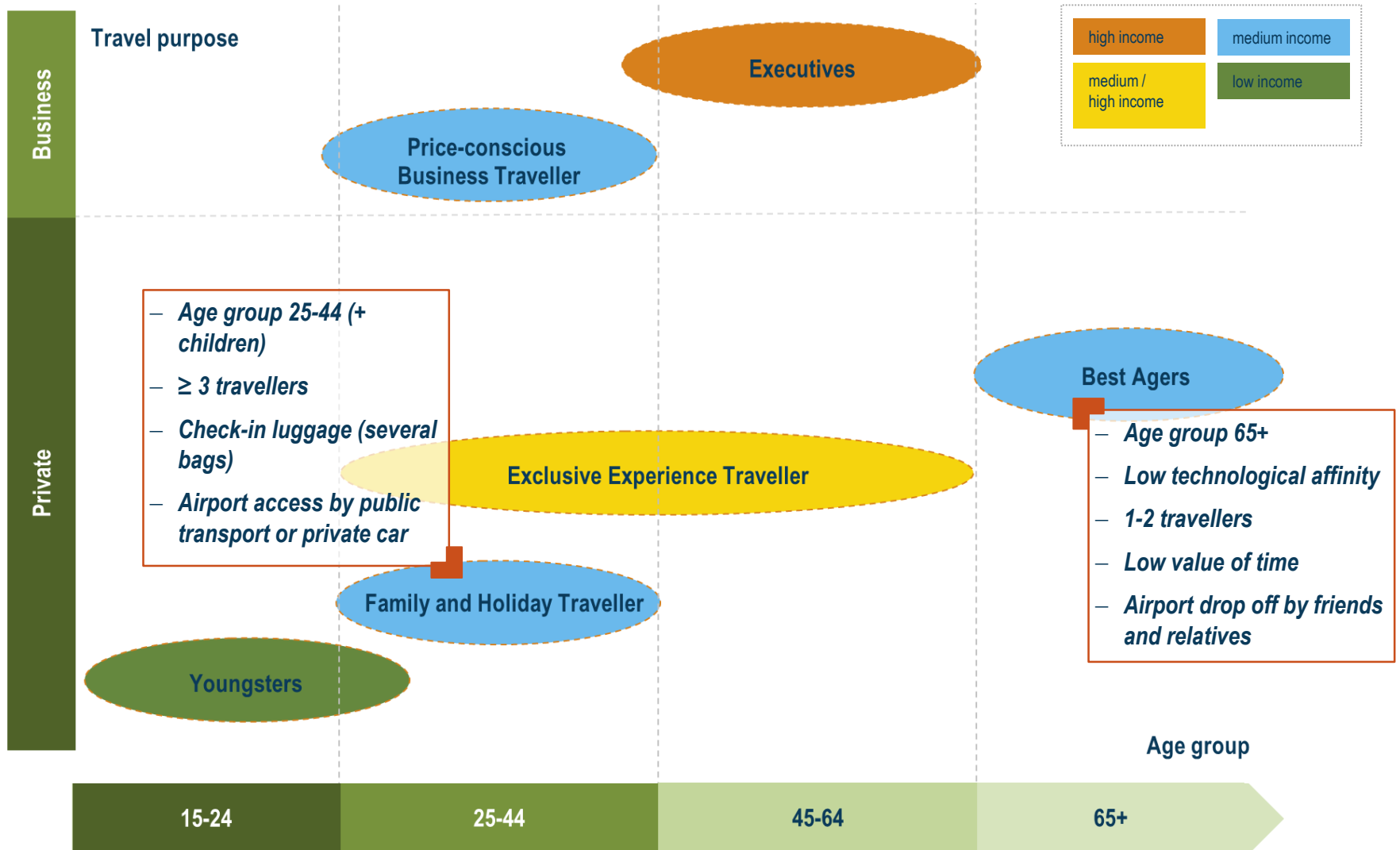
According to age, travel purpose and trips per capita



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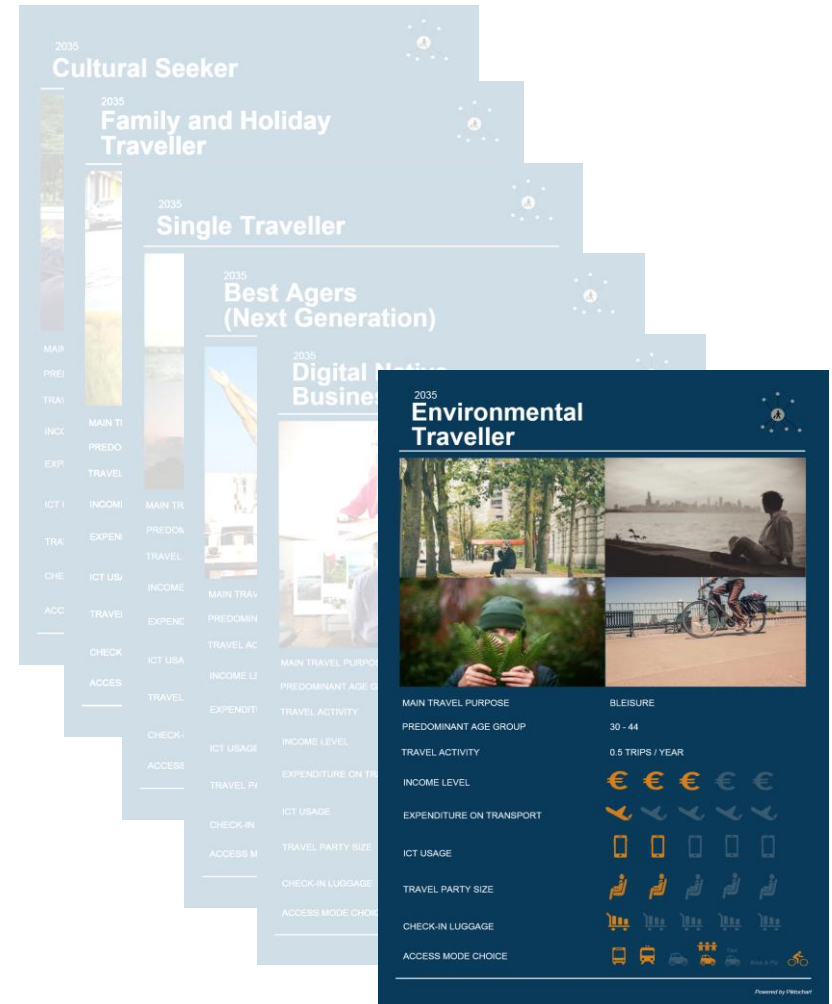
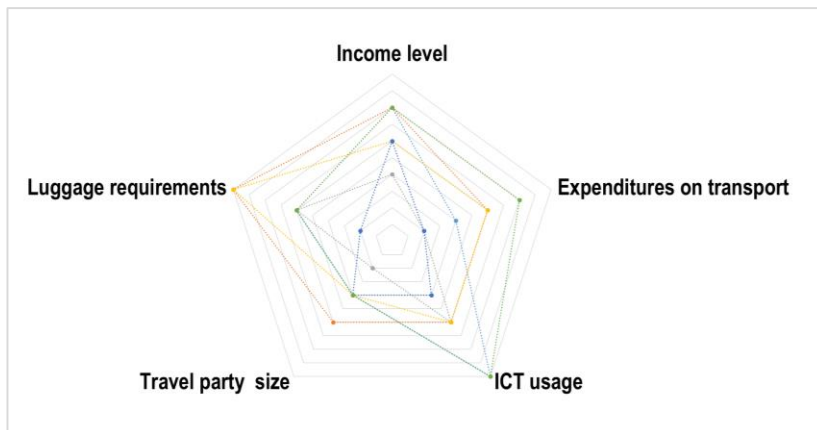


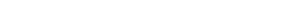
Current demand profiles 2014



>> Profiles developed within DATASET2050 project (D3.2)

- Cultural Seeker
- Family and Holiday Traveller
- Single Traveller
- Best Agers
- Environmental Traveller
- Digital Native Business Traveller



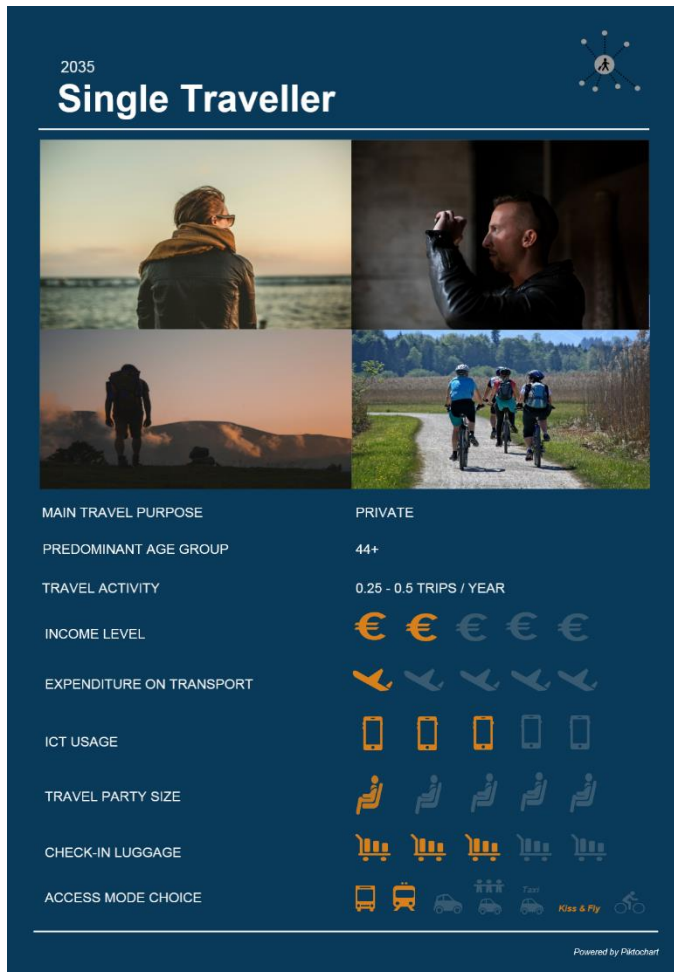





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Demand profiles in 2035 (3/3)



>> **DATASET2050:** <http://www.dataset2050.com/>

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