



The role of technology in improving the touristic experiences of cruise passengers: Business review and a new solution for adding a 'tasting' experience

Presenter: Perra Vasiliki-Maria, CERTH/HIT

Author(s): Sdoukopoulos^{1,2}, E., Perra¹, V.M., Boile^{1,2}, M., Efthymiou³, L., Dekoulou³, E., Orphanidou³, Y.

1



2



Πανεπιστήμιο Πειραιώς
University of Piraeus

3



UNRF
UNIVERSITY of NICOSIA
RESEARCH FOUNDATION



Contents

- Introduction
- The status of the cruise sector in Greece and Cyprus
- A new digital tool for boosting local economies at cruise destinations
- Next steps and conclusions



The main trends in the cruise sector

- Digitalization of the sector and extensive use of smart technologies, such as onboard internet connectivity, smartphone applications, added-value personalized services
- Passengers going beyond conventional sightseeing (i.e. cultural visits, taste of local cuisine, 'living as locals', etc.)
- Widening of cruise passengers' profiles (i.e. including gen Z, working nomads, female groups, solo travelers, etc.)
- Expansion of cruise seasonality



Opportunities for introducing local cuisine and products to cruise passengers at each port of call.



Bilateral benefits for both the cruise sector and local economies.



The contribution of the sector in Europe

- The cruise sector is an important contributor to the **Blue Economy**
- Economic impact is based on the expenditures of both cruise passengers and crew members and cruise vessels (i.e. food and other supplies, port fees, etc.) at home ports and ports of call
- In 2019, the sector reached a total economic output of **\$64.5 million** and supported **413,900 jobs**
- The aforementioned are supported by **three key factors**:
 - Europe is the largest cruise shipbuilding industry in the world
 - European citizens account for the 2nd largest source of cruise passengers
 - The Mediterranean is the 2nd most attractive cruise destination in the world



The status in Greece

- It is the **3rd most attractive** cruise destination in MED region
- It holds only the **9th position** in terms of economic output due to:
 - Limited home-porting activities
 - Limited expenditures of cruise passengers at ports of call
- It accommodates about **5 million cruise passengers** and **3,900 calls** of cruise vessels (average numbers of 2015-2019)
- In 2018, **56 ports** hosted cruise vessels (concentrated mainly in the South Aegean)
- 95% of cruise passengers and 80% of calls are concentrated in 10 major ports
- **Piraeus** and **Katakolo** accommodate the largest number of cruise passengers due to their proximity to sites of great touristic and archaeological interest





The cruise network in Greece

- In 2019 (April – December), 277 itinerary legs were served by 829 cruise vessels, operated by 28 cruise companies
- In 2020, the scheduled itinerary legs reached 333, operated by 891 cruise vessels. COVID-19 pandemic led to multiple cancellations and disruption of services. In order to safely restart cruise operations, new health protocols both onboard and at the ports of call has been introduced.
- The **connectivity** of the network consists of:
 - 1% of the itineraries are of national scale
 - 95% of them are of international (within the Mediterranean region)
 - The Adriatic Sea (North Italy, Albania, Croatia, Montenegro, and Slovenia)
 - The Western and Eastern Mediterranean Sea (Spain, West Italy, and Malta - Cyprus and Israel respectively)
 - The Red Sea (Egypt, United Arab Emirates, Jordan, and Israel)
 - The Black Sea (the North coastline of Turkey and Bulgaria)
 - Multiple connections also with the western coastline of Turkey and South Italy and Sicily in particular.
 - 4% of them are of global scale (connection with North Europe, North and South America, South Africa, South Asia, and Australia)



The status and the network of the cruise sector in Cyprus

- In 2018, it accommodated 90,393 cruise passengers and 110 cruise calls.
- Limited cruise operations, completely disrupted by the COVID-19 pandemic.
- The **connectivity** of the network consists of:
 - International itineraries, connected with:
 - The Eastern and Western Mediterranean (Jordan, Lebanon, Israel, Egypt, and Greece - Italy and Malta respectively)
 - The Black Sea (Turkey)
 - The Red Sea, reaching the Indian and Pacific Ocean and the southern coastline of Africa (United Arab Emirates and the Republic of Campos Verde)

A new digital tool for boosting local economies at cruise destinations: The concept

The tool:

A digital platform – **NAUS** that provides

1. Detailed list of local ‘traditional’ products
2. The cruise companies and passengers order the products they prefer
3. The products are delivered to the cruise vessel upon its arrival

The focus:

Local ‘traditional’ products, particularly food and beverages

The objectives:

The provision of a ‘tasting’ experience of each visited destination

Information to the passengers about the ‘traditional’ products before the arrival at the destination and pre-order the preferred products

Bilateral economic benefits for local producers / suppliers and cruise companies and passengers

Increase home-porting activities and the expenditures of the cruise sector at transit ports

A new digital tool for boosting local economies at cruise destinations: The methodology

Through local workshops undertaken in Greece and Cyprus and a questionnaire survey, it was collected feedback about:

- The functionalities of the platform
- The necessary data to be collected
- The roles of its users

Recommendations about:





Recommendations for NAUS platform

Users

- Potential users:
 - Local producers / suppliers
 - Cruise companies
 - Cruise passengers
 - Companies managing speciality restaurants and other shops onboard the cruise vessels
 - Logistics providers
- Set-up of user profile in the platform with all requested information.
- Evaluation of other users (i.e. give a grade / star and positive or negative comments).
- Users with a low grade will receive a warning for improving their performance and a penalty if they fail to do.

Listing of products

- Focus on food and beverages.
- Insertion of products through forms for detailed information (e.g. product name, origin, weight, quantity, price, type of package, photos, etc.).
- Interoperability with producers' / suppliers' inventory systems (automated insertion and update of products' characteristics - e.g. quantities).
- Upload of quality certificates of products.



Recommendations for NAUS platform

Product searching

- Categorization of products (per type, origin, etc.).
- Free text search functionality (i.e. keywords).
- All information available in both Greek and English.

Order processing

- After order placement, contact details of the contracted parties will be shared.
- No payment through the platform.

Matching supply and demand

- Placement of an order from Cruise companies, Cruise passengers, Companies managing specialty restaurants and other shops onboard the cruise vessels, and Logistics providers
- Post of their needs and producers / suppliers can respond if willing to address them. In this case, cooperation between different producers / suppliers may be necessary for meeting all needs (i.e. in terms of different products or quantities).
- Specified or indicative ranges of prices may be mentioned and then exact price is specified once the order is placed (i.e. a discount rate may be given to larger orders)
- Specific time windows (i.e. in respect of the estimated time of arrival of the respective cruise vessel)



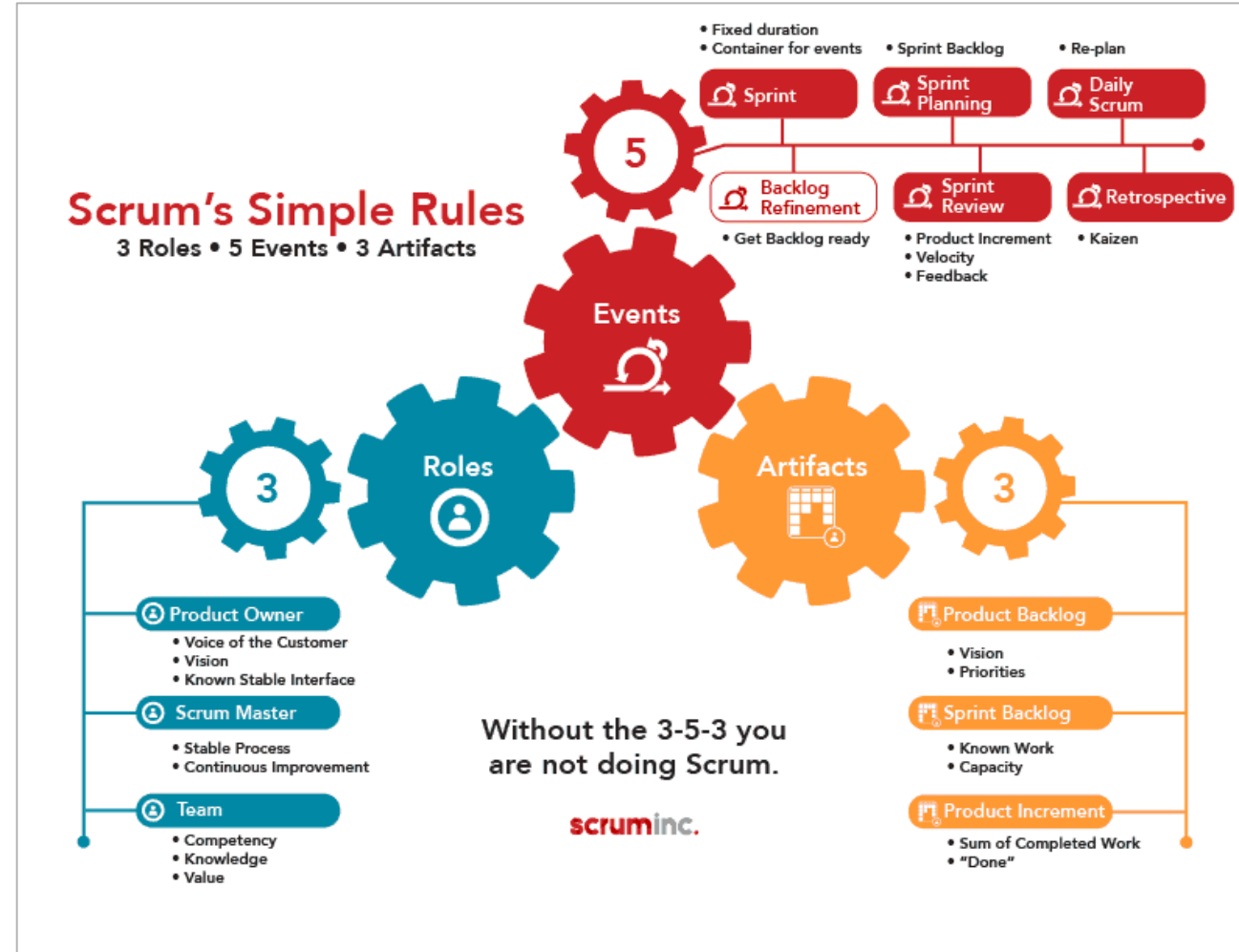
The NAUS platform

High-level architecture

The recommendations were integrated into NAUS' architecture

Development process

- It follows the SCRUM framework
- Scalability of the platform in order to add any required new services / functions in the future
- Interoperability with maritime information systems (National Maritime Single Windows of Greece and Cyprus – not fully operational at the moment)





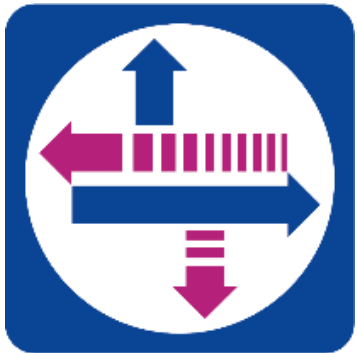
The NAUS platform: Next steps

Pilot-testing (Current phase)

- Any deviations from users' expectations will be identified through pilot phase and addressed in the final version of the platform
- Relevant stakeholders involved in consultation process, will test the platform and provide feedback
- Assessment of platform's structure and functionality in terms of usability and user-friendliness
- Assessment of information completeness and interoperability of with their systems
- Several cruise Greek and Cypriot cruise destinations will be engaged in pilot-testing



Thank you for your attention!



Hellenic Institute of Transport
(HIT)

Centre for Research and
Technology Hellas (CERTH)

Contact details:

Sdoukopoulos Eleftherios, CERTH/HIT
sdouk@certh.gr

Perra Vasiliki-Maria , CERTH/HIT
vmperra@certh.gr



Visit <https://naus-project.eu/>

The project NAYS is being implemented under the Cooperation Programme INTERREG V-A "Greece-Greece 2014-2020" which is co-funded by the European Regional Development Fund (ERDF) and national funds of the countries participating in it. The content of the (presentation) is under the responsibility of its owner and under no circumstances does it represent the opinions of the European Union, the participating countries and the managing authority.