



Tourism Data: Integrated Information System (S2S), sharing data and Official Statistics



Statistical Data Collection and Sources

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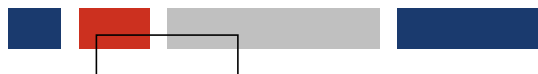
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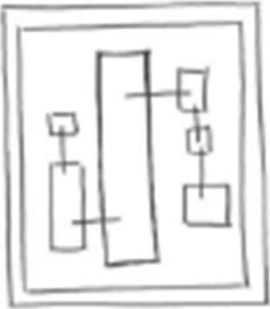


Outline

- ✓ National Data Infrastructure (NDI)
- ✓ Integrated Tourism Information – SiT | present
- ✓ Integrated Tourism Information – SiT | next steps and challenges



National Data Infrastructure (NDI)

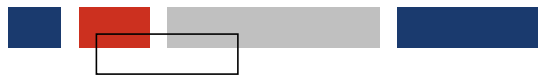
Appropriation and use of administrative data and other sources	Partnerships	New roles
Data integration		Information security and data protection
Innovation	Integrate and share platforms, algorithms, knowledge, ...	Increase the economic and social value of the public good: statistical information



National Data Infrastructure (NDI)

Since 2018, several initiatives to create the National Data Infrastructure (NDI)

- ✓ use of multiple data sources
- ✓ provide a single access point to the various data sets (administrative and other)
- ✓ available for multiple purposes or projects
- ✓ either to support the production of official statistics or to research activities
- ✓ Simplified Business Information success of data interoperability and integration
- ✓ in this strategy, tourism is a very relevant statistical area to be involved
- ✓ dynamic sector, highly competitive, with a strong impact and standardized information



Tourism Data: Integrated Information System (S2S)

main goal is to collect and deliver **statistical data through a single-entry point**

- ✓ system will be supported by INE infrastructure, using WebInq platform, for primary data collection, with **automatic data transmission**, by XML
- ✓ development of the Integrated Tourism Information System (SiT) is an example, regarding data sharing based on a "**System to System**" approach
- ✓ **share the relevant information** with partners, national tourism authority - Turismo de Portugal (TP) - and national central bank - Banco de Portugal (BdP)



Survey Management System





fast, easy, improve quality,
reduce reporting burden,
costs' saving

```
<?xml version="1.0" encoding="Windows-1252"?>  
<ine xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema" >  
  <header chave="INE99999-2783-9999-9000-2ED038CB5BC8">  
    <geracao>  
      <data>2022-04-13T15:07:23.5661301Z</data>  
      <software ver="2021.4.10">SOFTWARE HOUSE</software>  
    </geracao>  
    <qual>REAL</qual>  
  </header>  
</ine>
```

1st level

```
<respostas>  
  <resposta>  
    <referencia>  
      <inq>IPHH</inq>  
      <estab>9000000070001</estab>  
      <mensal>  
        <ano>2022</ano>  
        <sub-periodo>04</sub-periodo>  
      </mensal>  
    </referencia>  
    <dados tipo="normal" ult_atualizacao="2022-05-13T15:07:23.5661301Z">
```

2nd level

```
<dados tipo="normal" ult_atualizacao="2022-05-13T15:07:23.5661301Z">  
  <v nome="BC030">HOTEL MAIS QUE PERFEITO</v>  
  <v nome="BC101">55204</v>  
  <v nome="BC105">20</v>  
  <v nome="VPP_1">67</v>  
  <v nome="VPP_2">70</v>  
  <v nome="VPP_3">135</v>  
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  <v nome="pais_ES_V2">1</v>  
  <v nome="pais_ES_V3">2</v>  
  <v nome="pais_FR_V1">64</v>  
  <v nome="pais_FR_V2">66</v>  
  <v nome="pais_FR_V3">214</v>  
  <v nome="pais_NO_V1">1</v>  
  <v nome="pais_NO_V2">1</v>  
  <v nome="pais_NO_V3">5</v>  
</dados>
```

3rd level



Automatic Data Transmission

Início Quadro 1 Quadro 2 Notas

Permanência de hóspedes (durante o mês de referência)

País de residência habitual		Nº de Hóspedes que entraram no mês			Nº de Hóspedes que dormiram no mês a)			Nº de Dormidas (Noites)		
		1	2	3	1	2	3	1	2	3
Portugueses residentes em Portugal	VPP	<input type="text" value="5"/>	<input type="text" value="5"/>	<input type="text" value="5"/>	<input type="text" value="5"/>	<input type="text" value="5"/>	<input type="text" value="5"/>	<input type="text" value="5"/>	<input type="text" value="5"/>	<input type="text" value="5"/>
Estrangeiros residentes em Portugal	VEP	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Nota: Na linha anterior devem registar-se os Hóspedes de nacionalidade estrangeira que residem em Portugal. Os Hóspedes, que residem no estrangeiro, sejam portugueses ou estrangeiros, devem ser registados nas linhas seguintes, por país de residência habitual.

Residentes no Estrangeiro, por países de residência

	Nº de Hóspedes que entraram no mês			Nº de Hóspedes que dormiram no mês a)			Nº de Dormidas (Noites)			Apagar
	V1	V2	V3	V1	V2	V3	V1	V2	V3	
DE Alemanha	<input type="text" value="12"/>	<input type="text" value="12"/>	<input type="text" value="12"/>	<input type="text" value="12"/>	<input type="text" value="12"/>	<input type="text" value="12"/>	<input type="text" value="12"/>	<input type="text" value="12"/>	<input type="text" value="12"/>	<input type="checkbox"/>
LU Luxemburgo	<input type="text" value="6"/>	<input type="text" value="6"/>	<input type="text" value="6"/>	<input type="text" value="6"/>	<input type="text" value="6"/>	<input type="text" value="6"/>	<input type="text" value="6"/>	<input type="text" value="6"/>	<input type="text" value="6"/>	<input type="checkbox"/>
Sub-Total	18	18	18	18	18	18	18	18	18	

Outro país:

```

<v nome="V162">200</v>
<v nome="V163">200</v>
<v nome="VPP_1">5</v>
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<v nome="VPP_3">5</v>
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<v nome="pais_LU_V1">6</v>
<v nome="pais_LU_V2">6</v>
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</dados>

```

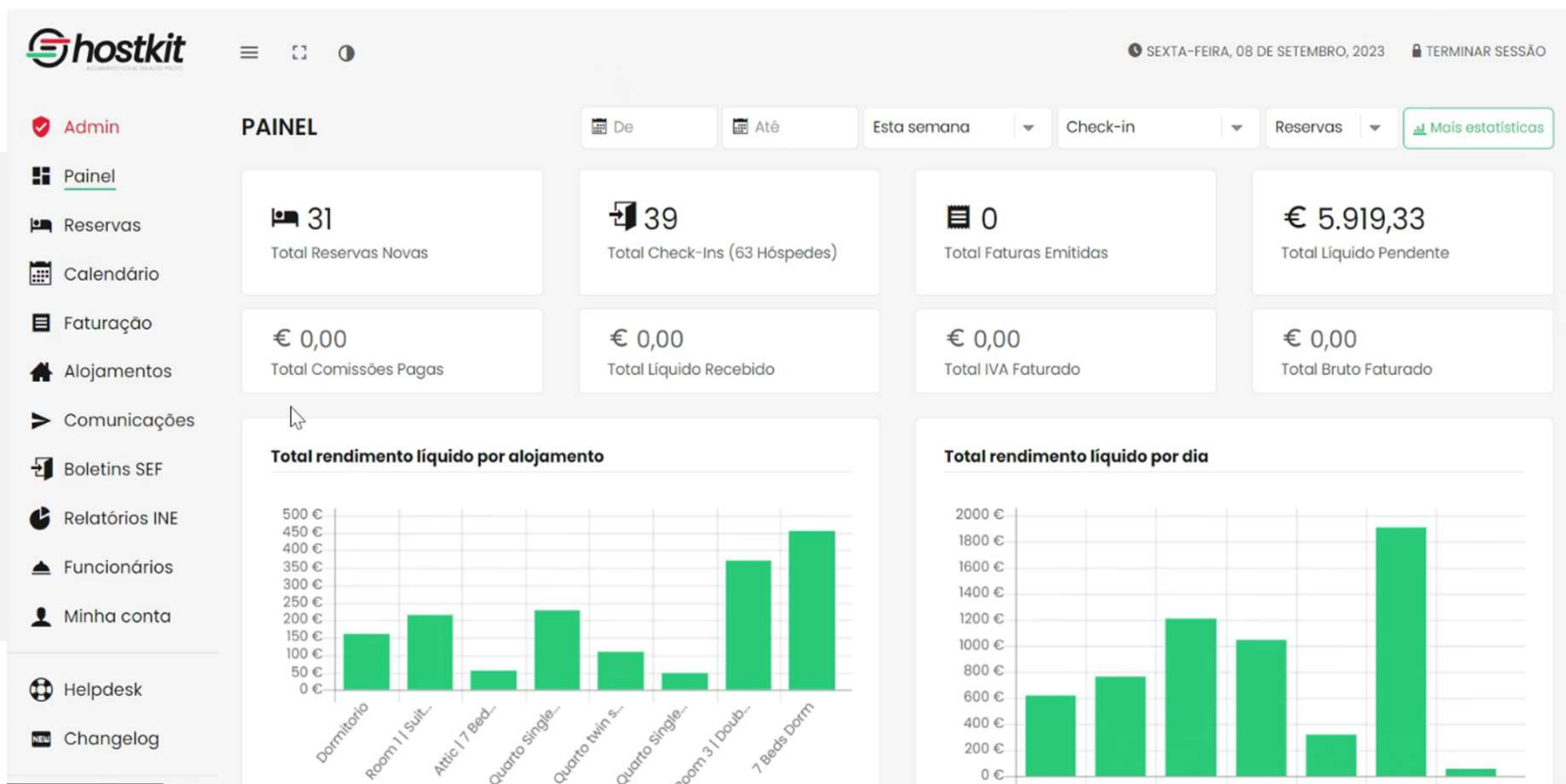
IPHH

fast, easy, improve quality, reduce reporting burden, costs' saving

several occurrences, multiple units

Tourism Data: Integrated Information System (S2S)

– example of an actual and real solution for handling tourism survey responses





Tourism Data: Integrated Information System (S2S)

Significant efficiency gain, shifting from a multiple data collection model to a centralized data collection and distribution system

- ✔ reporting statistical information using automatic data transmission, XML
- ✔ often used in the scope of surveys with a low frequency, like weekly or monthly, or surveys whose respondents use third-party applications
- ✔ great freedom in creating the structure, easy to implement and maintain
- ✔ submitted in two ways: on INE Webinq page, upload XML file, or via webservice, in which case it can be called up directly by external systems



SiT *principal variables*

SiT - Integrated Tourism Information System

Variable	Description	Reporting frequency
A Activity		
A.01 Seasonality	Variable collected	Monthly
A.02 Closure periods	Variable collected	Infra monthly
A.03 Reason for closure	Variable collected	Infra monthly
B Infraestrutura / Caracterização		
B.01 Rooms accessible to people with reduced mobility	Variable collected	Monthly
B.02 Rooms available	Variable collected	Monthly
B.03 Dormitories available (excluding rooms)	Variable collected	Monthly
Divisions for overnight stays		Calculated variable
B.04 Available flats, by type (T0 to T6)	Variable collected	Monthly
Total number of flats available		Calculated variable
B.05 Single beds (excluding bunk beds)	Variable collected	Monthly
B.06 Double beds (excluding bunk beds)	Variable collected	Monthly
B.07 Single beds with bunk beds	Variable collected	Monthly
B.08 Double beds with bunk beds	Variable collected	Monthly



SiT *principal variables*

C Occupancy / Check-in			
C.01	Check-In ID	Variable collected	Infra monthly
C.02	Check-in date	Variable collected	Infra monthly
C.03	Departure date (planned/definitive)	Variable collected	Infra monthly
C.04	Incoming guests by country of residence	Variable collected	Infra monthly
	Checked-in guests	Calculated variable	
	Outgoing guests	Calculated variable	
	Overnight guests	Calculated variable	
	Overnight stays	Calculated variable	
C.05	Revenue associated with check-in	Variable collected	Infra monthly
C.06	Rooms used (sold)	Variable collected	Infra monthly
	Total rooms used (sold)	Calculated variable	
C.07	Flats used (sold), by type (T0 to T6)	Variable collected	Infra monthly
	Total flats used (sold), by type	Calculated variable	
C.08	Type of equipment or accommodation	Variable collected	Infra monthly
C Monthly occupancy (Monthly control)			
C.11	No. of check-ins carried out in the month	Variable collected	Monthly
C.12	No. of check-outs carried out in the month	Variable collected	Monthly
D Prices at the counter/online			
D.01	Type of price (counter or online)	Variable collected	Monthly
D.02	Day	Variable collected	Monthly
D.03	Type of accommodation unit	Variable collected	Monthly
D.04	Room price, including breakfast	Variable collected	Monthly
D.05	Room rate including half board	Variable collected	Monthly
D.06	Room rate including full board	Variable collected	Monthly
D.07	All-inclusive room rate	Variable collected	Monthly
E Income (Turnover)			
E.01	Turnover - Total	Variable collected	Monthly
E.02	Turnover - Accommodation	Variable collected	Monthly
E.03	Turnover - Catering	Variable collected	Monthly



Tourism Data: Integrated Information System (S2S)

- example of the variables available in an *establishment with booking reserves*

	A	B	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
	Book number	Booked by	Check-in	Check-out	Booked on	Status	Rooms	Persons	Adults	Children	Price	Commission %	Commission amount	Payment status	Payment method	Remarks	Booker group			
1	25808123xx	xx, xxx	2021-10-01	2021-10-03	2021-09-28 00:52:04	ok	1	2			63 EUR		15 9.45 EUR	Paid online						
3	28906510xx	xx, xxx	2021-10-01	2021-10-02	2021-09-16 18:57:39	ok	1	2			24.3 EUR		15 3.645 EUR	Paid online						
4	30359724xx	xx, xxx	2021-10-01	2021-10-02	2021-09-29 13:46:41	ok	1	2			36 EUR		15 5.4 EUR	Paid online		Approximate time of arrival: between 22:00 and 23:00				
5	25452939xx	xx, xxx	2021-10-02	2021-10-03	2021-10-01 22:38:50	ok	1	2			36 EUR		15 5.4 EUR	Paid online		BED PREFERENCE:Deluxe Double Room with Balcony				
6	29693016xx	xx, xxx	2021-10-02	2021-10-03	2021-09-29 22:23:10	ok	1	2			27 EUR		15 4.05 EUR	Paid online						
7	36101128xx	xx, xxx	2021-10-02	2021-10-03	2021-10-02 12:17:44	ok	1	1			36 EUR		15 5.4 EUR	Paid online						
8	23926051xx	xx, xxx	2021-10-03	2021-10-10	2021-09-23 17:33:23	ok	1	1			220.5 EUR		15 33.075 EUR	Paid online						
9	26565404xx	xx, xxx	2021-10-03	2021-10-04	2021-10-03 19:38:16	ok	1	2			36 EUR		15 5.4 EUR	Paid online						
10	26900623xx	xx, xxx	2021-10-03	2021-10-04	2021-09-30 21:51:10	ok	1	2			27 EUR		15 4.05 EUR	Paid online						
11	29790443xx	xx, xxx	2021-10-03	2021-10-05	2021-10-03 10:50:30	ok	1	2			72 EUR		15 10.8 EUR	Paid online		Approximate time of arrival: between 15:00 and 16:00				
12	31014543xx	xx, xxx	2021-10-03	2021-10-04	2021-10-02 10:05:32	ok	1	2			31.5 EUR		15 4.725 EUR	Paid online						
13	24108019xx	xx, xxx	2021-10-04	2021-10-06	2021-10-02 16:02:33	ok	1	2			63 EUR		15 9.45 EUR	Paid online		Approximate time of arrival: between 16:00 and 17:00				
14	26322192xx	xx, xxx	2021-10-04	2021-10-05	2021-10-02 20:01:29	ok	1	2			36 EUR		15 5.4 EUR	Paid online		BED PREFERENCE:Deluxe Double Room with Balcony				
15	31401802xx	xx, xxx	2021-10-04	2021-10-05	2021-09-17 18:00:40	ok	1	2			27 EUR		15 4.05 EUR	Paid online		Approximate time of arrival: between 23:00 and 00:00 Ou				
16	35995577xx	xx, xxx	2021-10-05	2021-10-06	2021-10-02 17:51:38	ok	1	2			27 EUR		15 4.05 EUR	Paid online						
17	36150307xx	xx, xxx	2021-10-05	2021-10-07	2021-10-05 14:49:28	ok	1	1			63 EUR		15 9.45 EUR	Paid online						
18	37715678xx	xx, xxx	2021-10-05	2021-10-06	2021-09-22 11:22:46	cancelled_by_guest	1	1			29.7 EUR		15							
19	37970685xx	xx, xxx	2021-10-06	2021-10-07	2021-09-21 21:58:07	ok	1	2			27 EUR		15 4.05 EUR	Paid online		Approximate time of arrival: between 18:00 and 19:00				



Tourism Data: Integrated Information System (S2S)

state of the art

- ✓ **feedback** from business associations, companies and software companies
- ✓ **ensure** partners' information needs are fulfilled
- ✓ **variables are defined** and their availability in the respondents' management systems is ensured
- ✓ **technological option**, stable and consensual, within current production in tourism data collection



Tourism Data: Integrated Information System (S2S)

next steps and challenges

- ✓ **specific legal framework**, both for reporting obligations and permission to share with partners, in the scope of their specific duties and responsibilities
- ✓ **heterogeneity of respondents**: how to ensure that the majority have technological and computer literacy skills
- ✓ **investment to adapt management systems** to TAD, with possible "purchase" of a module available in third-party applications, can create resistance
- ✓ coverage to be extended to **small Local Accommodation** (with less than 10 capacity users), currently not mandatory and thus not covered



if you don't know it yet, visit Porto!

Obrigado!