



'Cruise Tourism Mechanics': Understanding the industry's Dynamics & Current Structures



Prof. Dr. Alexis Papathanassis

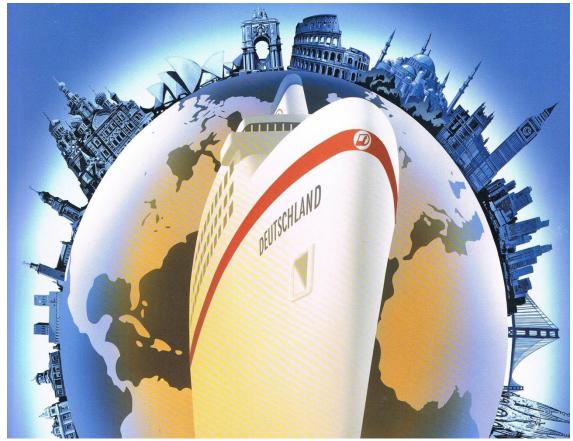
Maritime Tourism Summer School University of the Aegean

Rhodes – 01-03 of September 2014



Some Cruise Brochure Covers What is the Hidden Meaning?





CLIA 2014 State of the Cruise Industry Report

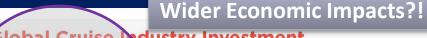
Demand & Supply Growth



CLIA 2014 Global Fleet

410 Ships Including River Cruise

467,629 Beds



Global Cruise Industry Investment



\$7.2 Billion Investment in 2013/2014



29 new ships with a capacity of 34,000+ pax in CLIA Global Fleet 2013/2014



Another 20 ships will join the CLIA Global Fleet (52,000+ beds) 2015-18

Global Passengers



2013 Estimate: 21,300,000

2014 Forecast: 21,700,000

Global Cruise Itineraries and Ship Deployment

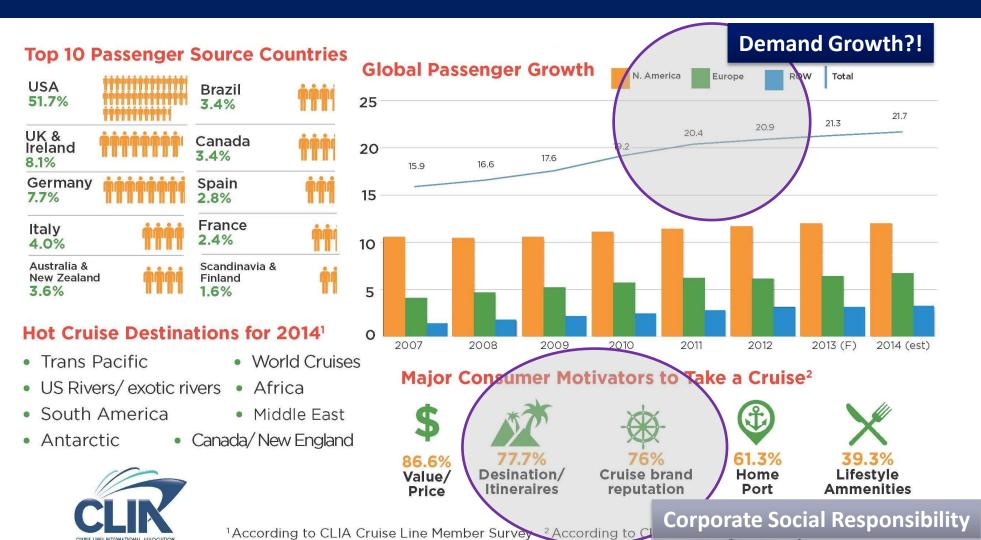
Capacity Market Share

Top 2014 Cruise Trends

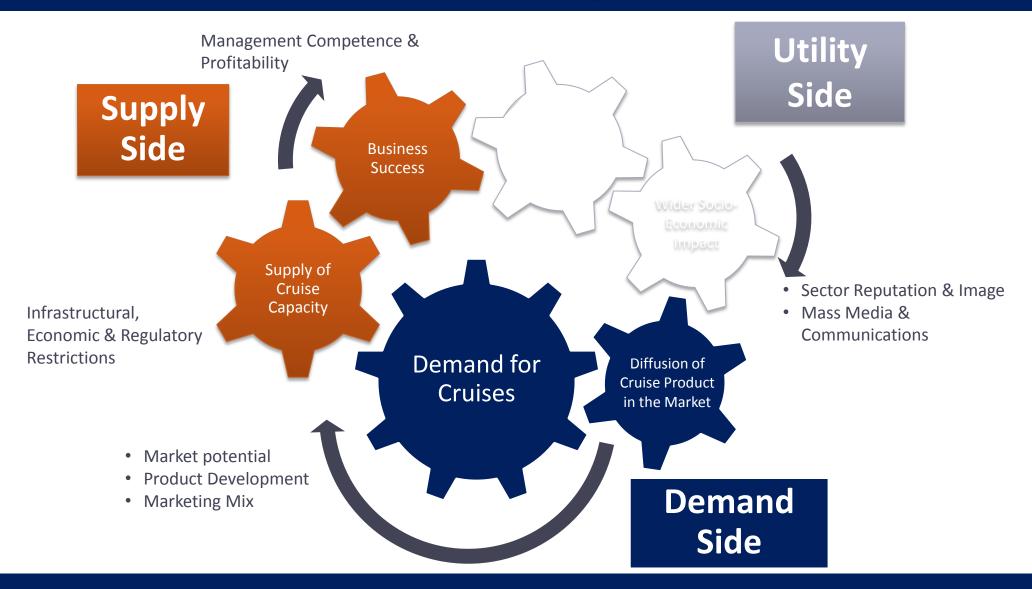
- Improved technology and connectivity at sea
- Millennials will drive first-time cruiser growth
- Luxury resurgence
- More all-inclusive packages
 - Multi-generational travel will increase
 - Active vacations at sea



CLIA 2014 State of the Cruise Industry Report Passenger Growth, Diversity & Value for Money



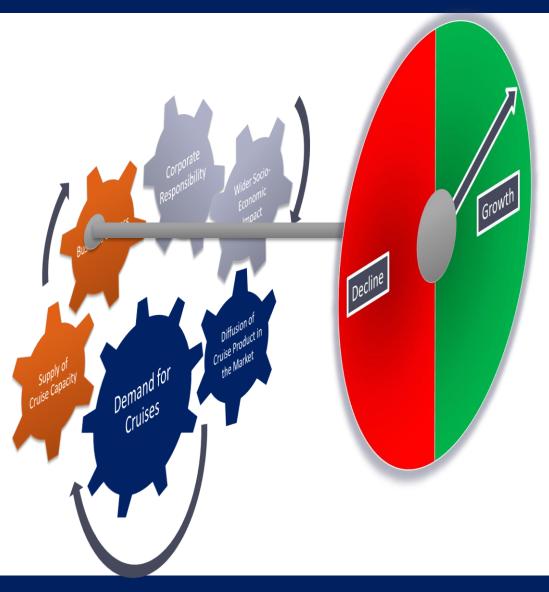
A Simple Model of Cruise Sector Evolution / Growth... 'The Cruise Engine'



The Dynamics of Cruise Sector Growth Illustrated...

When:

- Demand for Cruises
- Wider Socio-economic Impacts
- And Business Success (Profitability)
- ... Are all moving clockwise (i.e. Developing Positively growth continues)
- ... Unless slowed down (or reversed)by:
 - Cruise supply restrictions
 - Responsibility concerns (internal or external)
 - Diffusion dynamics in the source markets
- At some point:
 - Growth will lead to decline, and
 - After decline, growth can be expected



CRUISE TOURISM DEMAND-SIDE: CURRENT DEVELOPMENTS & FORECASTS

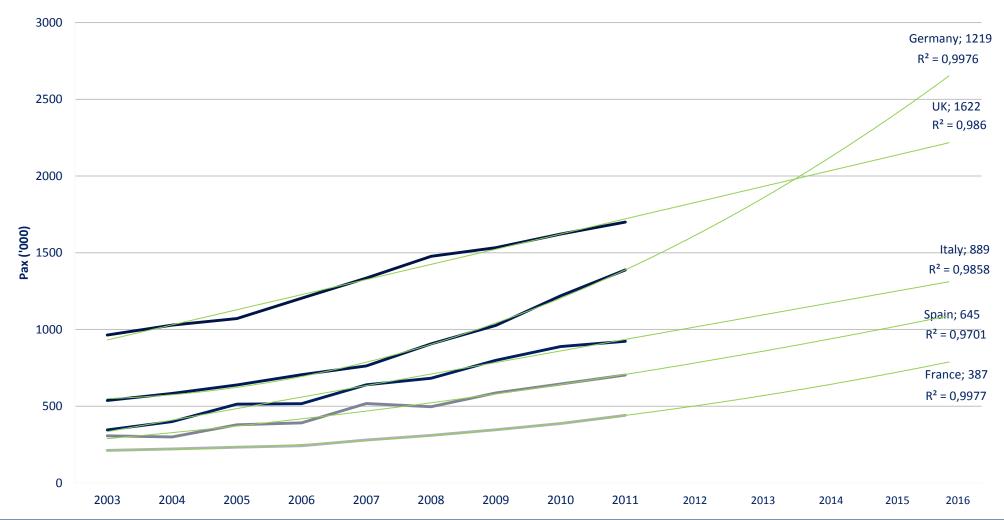
Endless Growth Potential!!



European Cruise Pax Development & Forecast

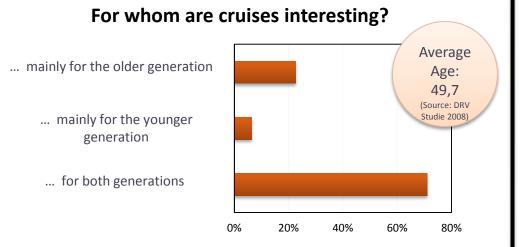
The EU Market is promising... Germany expected to be the leading EU source market

European Pax Development



Cruise Image and Potential Demand

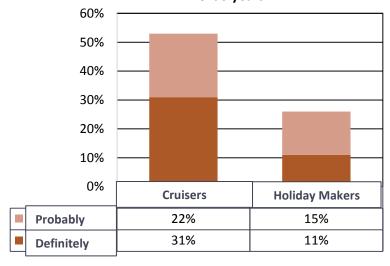
- German Market Potential (Source: ADAC Reisemonitor)
 - 2010: 4.3% of the population planned to take a cruise
 - 2009 & 2008: 3.9%
 - **—** 2007: 3.2%
 - Every third German could imagine taking a cruise in the next 5 years
 - Potential 31%
 - Preferred Regions: Mediterranean (Canaries),
 Caribbean



Source: http://www.web-tourismus.de 2008 (n:93)

- USA Comparison (Source: CLIA Cruise Market Profile Study 2008):
 - Average Age: 46
 - Market potential (approx. 43% of the population)= 128,5 Mil.
 - 59 Mil (approx. 44,6 % of the market potential) have been on a cruise
 - 30 Mil (approx. 50% of cruisers) have been on a cruise in the last 3 years

% of consumers intending to take a cruise in the next 3 years



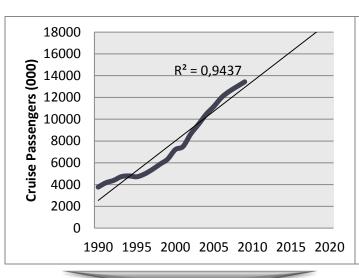
A Critical View on Growth: Extrapolation of Historical Data

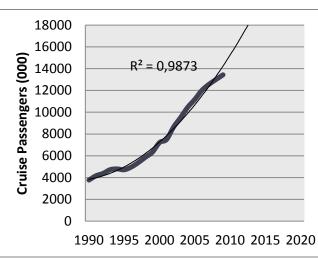
Linear Extrapolation

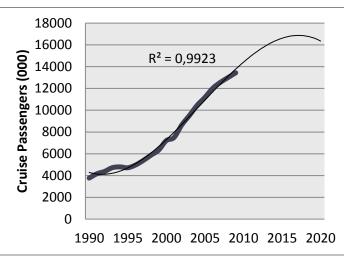
Quadratic Extrapolation

Cubic Extrapolation

(S-Shaped Curve)







- Least data fit (R2 = 94%)
- 30 Million Pax by 2041
- Indefinite growth assumption

- Second best data fit (R2 = 98%)
- 69 Million Pax by 2041
- Indefinite growth assumption

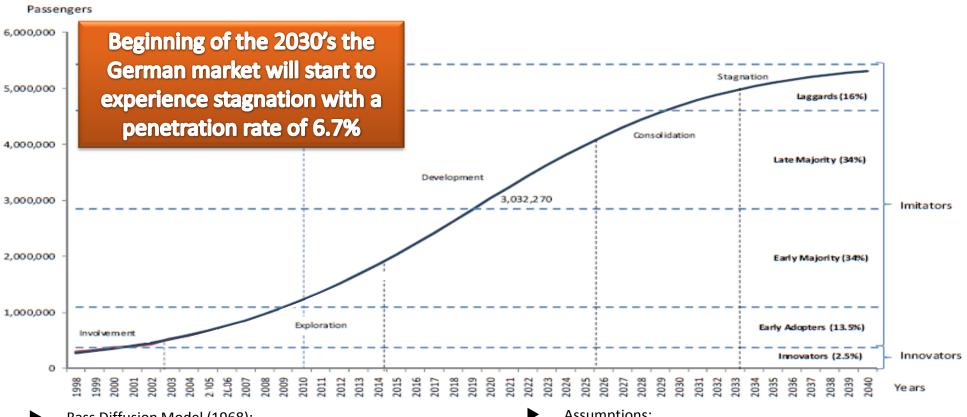
Forecast Implications?

Weak signals (e.g. ticket price reductions; mega-ships / onboard revenue) Validity of forecasting demand on the basis of supply?

- Best data fit (R2 = 99%)
 - Compatible with the Product Life Cycle concept
 - ► Historically applicable for tourist destinations (Butler 1980, 2006) and
 - ▶ Tourism segments (Zimmermann 1997)

© Alexis Papathanassis Source data: CLIA (2010)

Another Forecast A PLC-Based Forecasting Model



- Bass Diffusion Model (1968):
 - Represents an S curve Just like the Product- or Destination-Life Cycle
 - Can be used for forecasting the slope of the S curve, on the basis of the market potential and the degree of imitation and innovation
- Assumptions:
 - Market Potential in Germany approx. 5 million
 - Travellers spending more than €1700 on a vacation
 - Demographic structure remains the same
 - Innovation and imitation coefficients are calculated from the historical data (currently demand is determined by imitators cruise market has left the introduction phase)

© Alexis Papathanassis Source: Nee & Papathanassis (2011)

CRUISE TOURISM DEMAND SIDE: INNOVATION DIFFUSION MODEL (ROGERS, 1968)

Understanding the 'S Curve' (Product Life Cycle) of Sectors



Cruise Liners as Technological Marvels...



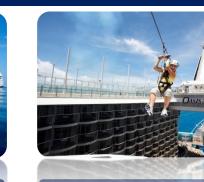
Modern Floating Destinations Full of Unique Experiences Some Impressions from the RCL Quantum of the Seas



Cruise Tourism A Recipe of Success



W: A U TUI Cruises



Modern Image

Comfort and Service Quality

,Round-tout without carrying suitcases'

,Being at home abroad'

Excellent Catering 24/7

Crew / Pax Ratio 1/3



W:∳:Æ ♥ TUIC∩ises

The ship as the Destination (Mega-ships, Floating Resorts)

Theme Cruises (e.g. Metal-Cruises)

> Sea-Land product **Combinations**

New Routes, Destinations

2012: Av. Price for a Cruise: € 1.710 (approx..€ 185/Day)*

Excellent Value for

Money

Increasing proportion First-**Timers**

> Increasingly younger customers

Innovation & Technology

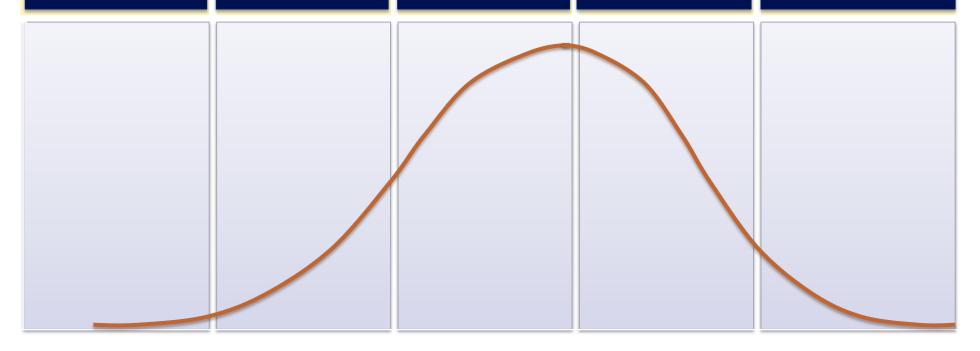
Innovation Diffusion Model (1) Original Model (or Product Life Cycle)

- Innovators (2.5%):
 - Adventurous
 - Well-educated
 - Well-informed
 - Well-off (usually)
 - Risk-takers

- Early Adopters (13,5%):
 - Respectable
 - Opinion leaders
 - Popular
 - Educated

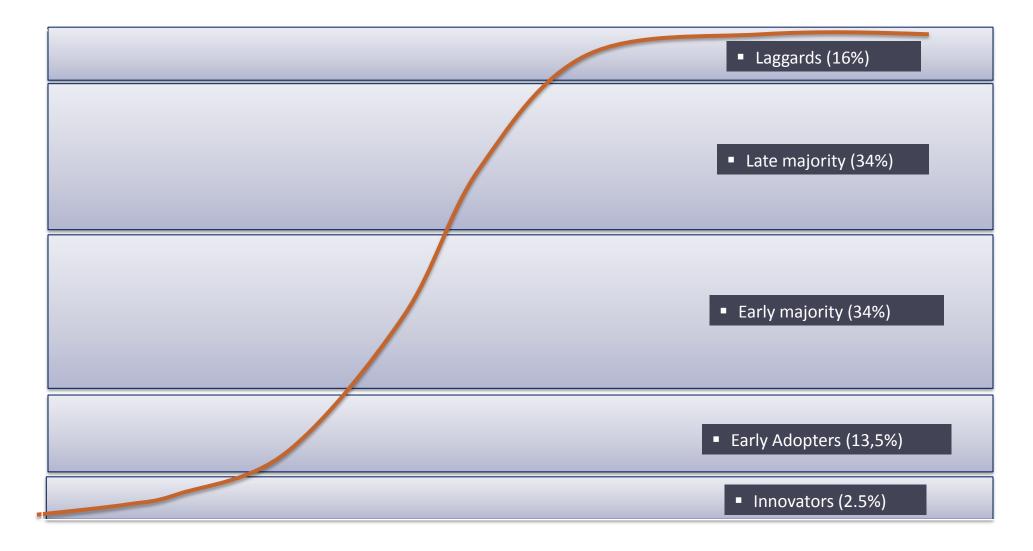
- Early majority (34%):
 - Thoughtful
 - Extensive social network
- Late majority (34%)
 - Sceptical,
 - Traditional
 - Lower social status

- Laggards (16%):
 - Traditionalists
 - Limited info sources and network
 - Risk-averse
 - Lower economic status

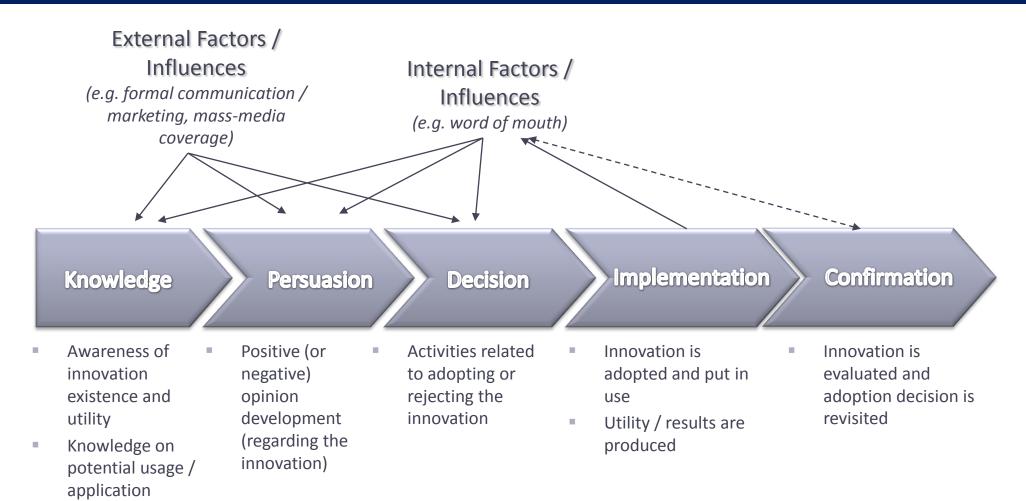


^{*} Rogers, E. (1962, 1995), Diffusion of Innovations, Free Press, New York

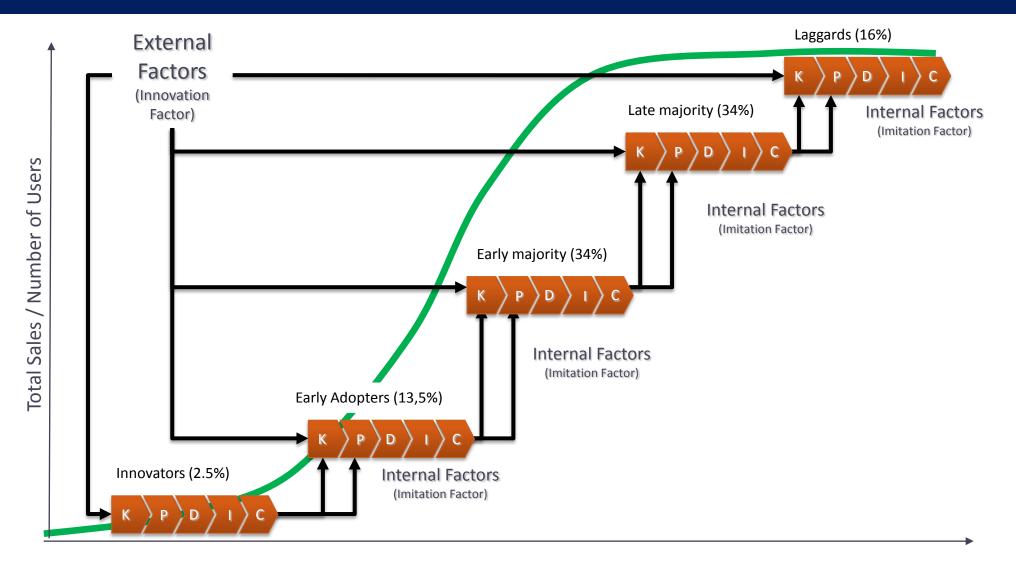
Innovation Diffusion Model (2) Cumulative Version (S-Curve)



Innovation Diffusion Model (3) Individual Adoption Process



Innovation Diffusion Model (4) Innovation & Imitation Factor



Diffusion 2.0: Online Guest Cruise Reviews Guest Empowerment & Multiplication Effects



• Cruise ship and port reviews from professionals and cruisers like you!

We have been on 5 cruises prior to this cruise. We would not ever consider cruising on Costa again nor would we recommend it to friends or family. Of all our prior cruises we never had a... read more

73 users found this review helpful.

Worst cruise out of the 13 I've been on. The most rude pepole I have ever encountered on land or sea. Cost has cut back to the bare bones and it shows everywhere. The crew seems unhappy as well... read more

29 users found this review helpful.

We chose this cruiseline for the initial reason of the price. It also helped that they offer a kids sail free program and in this economy, who can't say that's a welcome treat. We had an excellent... read more

58 users found this review helpful.

1 cruise, 3 dissatisfied guests, 160 readers!

Brand Promotion or Brand Destruction Possibilities?!

263 comments,
744 people 'Likes'...
since yesterday!



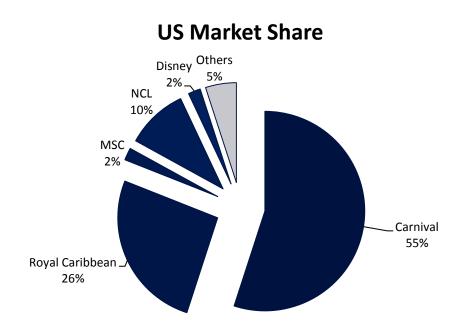
A big 'ol tip of the hat to Captain Greybeard for revealing the hull design for Norwegian Cruise Line's Breakway. Painted by Peter Max. Love it or hate it? http://bit.ly/OMY5aa

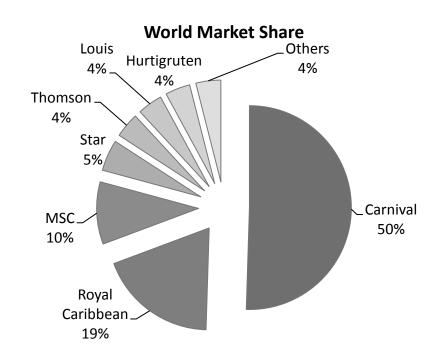


CRUISE TOURISM SUPPLY SIDE: SECTOR CONCENTRATION & MEGA-LINERS

Is Bigger Better?

Concentration through M&A "Cruise Sector Duopoly?"

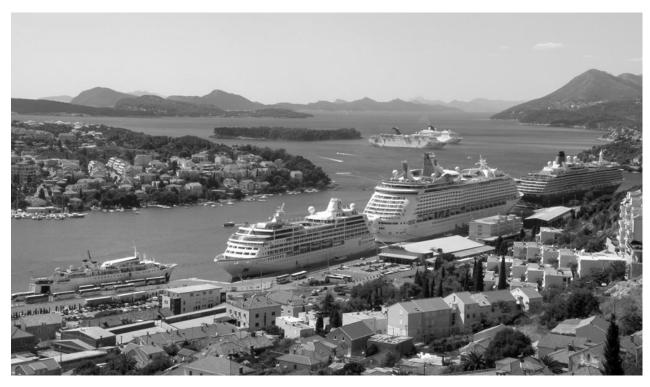




- Leverage over suppliers & destinations
- Economies of scale
- Risk-spreading & financial reserves
- Difficult for new entrants due to shipbuilding sector concentration

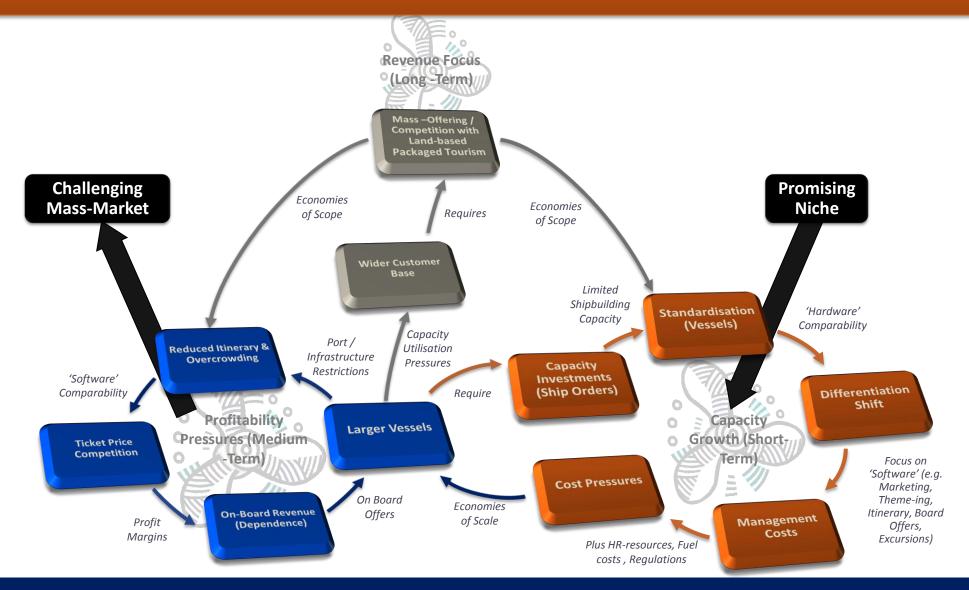
Capacity Development Mega-Ship Trend... Why?

- **2010***:
 - Global cruise fleet 298 vessels amounting > 400,000 berths
 - About half operate in Europe
- **2012-2016****:
 - Total Ships: 20
 - Total Berths: 57,751
 - Total Order Book Value: \$13,468,000,000.00
 - Average Price Per Berth: \$273,183



** Source: ISL (2011), Accessed: 10.10.2011

The Impact of Mega-Liners on Profitability The Journey from a Niche to a Mass-Market for Cruises

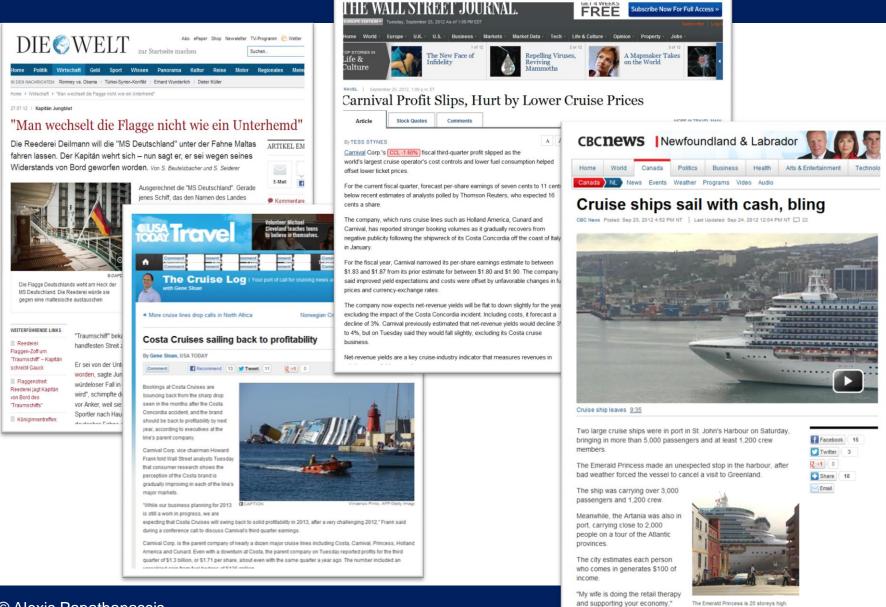


CRUISE TOURISM SUPPLY SIDE: CRUISE OPERATOR PROFITABILITY

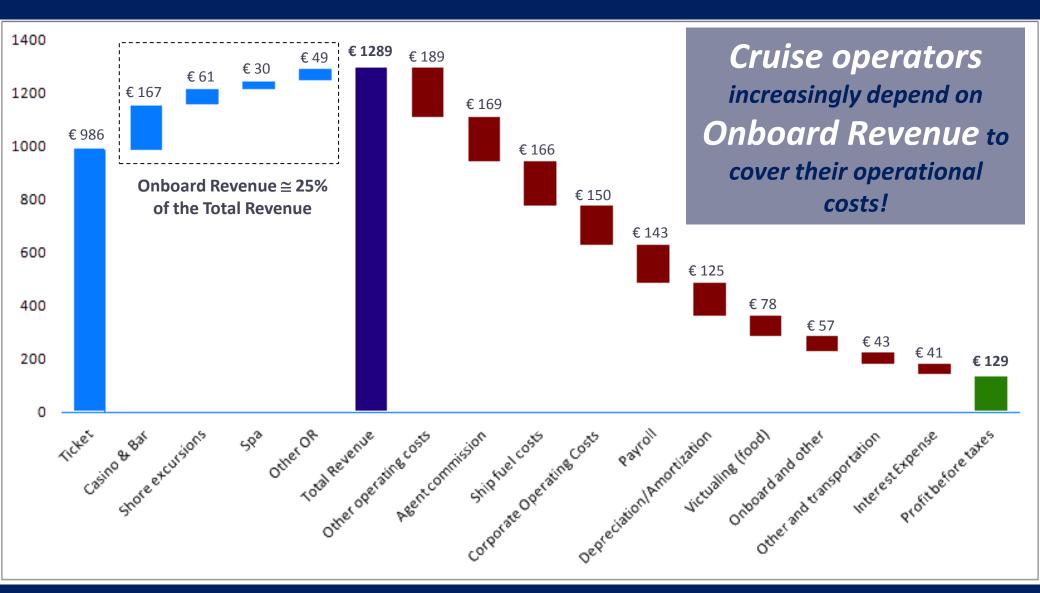
The 'Cannibalisation Effect'



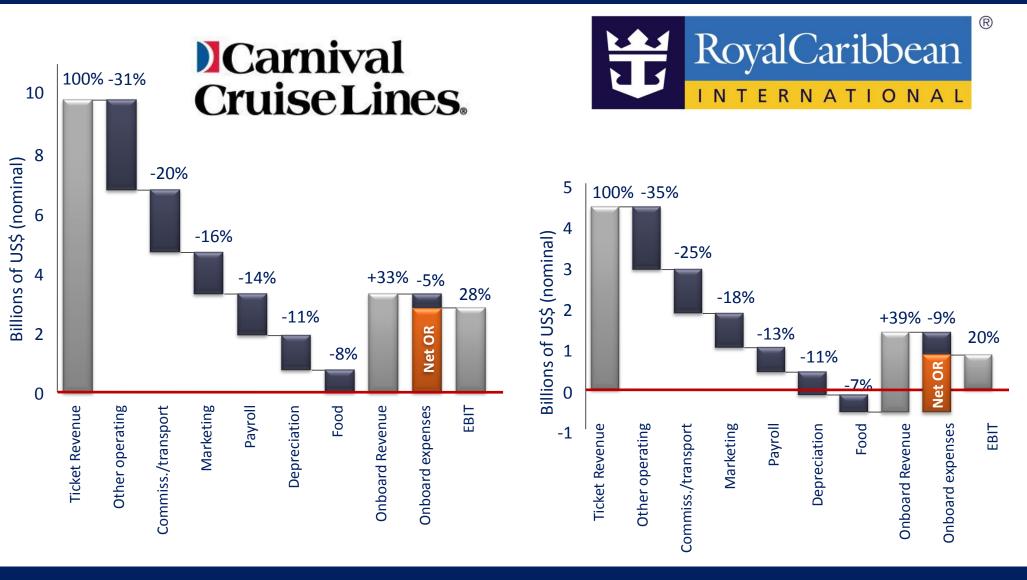
Cruise sector profitability...



Average Cruiser 2013 Financial Breakdown*

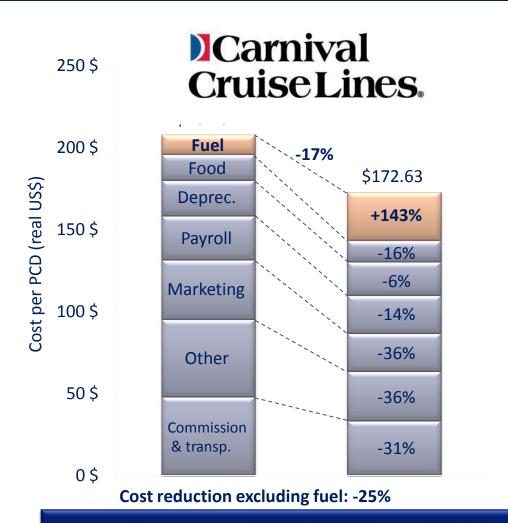


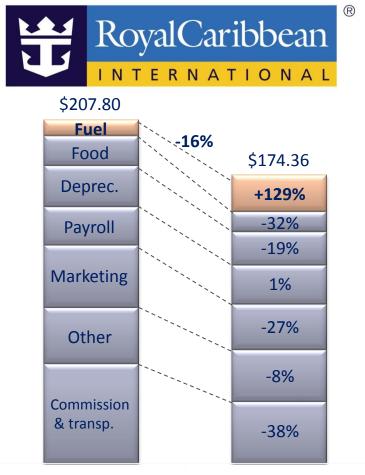
Balance Sheet Analyses (RCL & Carnival) 2007* Dependence on Onboard Revenue



© Alexis Papathanassis * Source: Vogel (2008)

Balance Sheet Analyses (RCL & Carnival) 2011* Cost-Saving Pressures?!



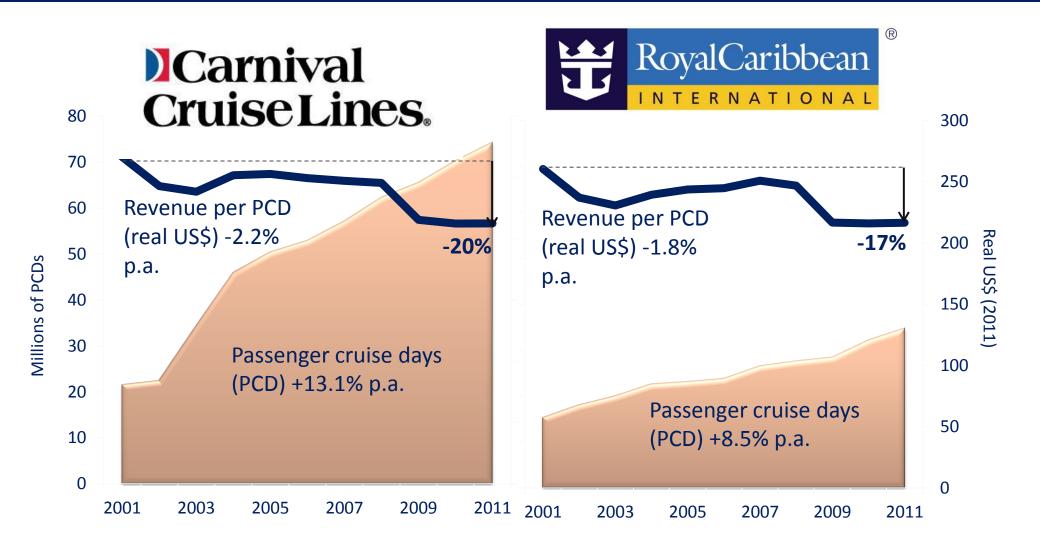


Cost reduction excluding fuel: -21%

Costs per PCD 2001 vs. 2011 excluding cost of onboard sales

© Alexis Papathanassis * Source: Vogel (2012)

Balance Sheet Analyses (RCL & Carnival) 2011* Dependence on Onboard Revenue



Profit margins have decreased by approx. 4% over the last decade and are following a downward trend... Could it be that too many options onboard cannibalise shore-side cruise operator income?

The Implications of Growth The Price of Cost-Cutting & Profitability

Environment

- Image issue ('From Paper to Practice')
 - Friends of the Earth Scorecard
- Cruise Operators' sustainability reports
- Integration of new technologies on existing fleets

Overcrowding & Itineraries

- Customer satisfaction deterioration
- Relationship between locals & tourists (Antagonism)
- Destination limitations (Seasonal, infrastructural)

Cost Pressures & Competition

- Rising fuel prices
- Safety & security regulations
- Personnel costs
- Fusion packaged tourism cruise tourism (extended competitive scope)

Social Responsibility

- Tax avoidance Flags of convenience
- Image issue ('Sweatships')
 - Intl Transport Workers' Federation (ITF)
 - International Labour Organisation (ILO)
- Crew living & employment conditions
- Criminality on board (Balancing security with recreation)

CRUISE TOURISM UTILITY SIDE: CORPORATE SOCIAL RESPONSIBILITY

A Media Soap Opera... Or a Scandal Below Deck?



'Too Big to Sail'* The Costa Concordia Aftermath and Questions Raised

'Given the size of today's ships, any problem immediately becomes a very big problem,'

The New Hork Times

"The simple problem is they are building them too big and putting too many people aboard,"

October 27, 2013

"My answer is they probably exceeded the point of manageability."

Too Big to Sail? Cruise Ships Face Scrutiny

A recent report by the Coast Guard on the Splendor fire revealed glaring problems with the crew's firefighting abilities as well as failures in fire safety equipment.

The investigation did not address the size of the ship, which carried 3,299 passengers. But it showed that big vessels can quickly become crippled by small fires that disable complex systems. No passengers were hurt, but the damage to the engine room was severe, disabling the ship's power and forcing it to be towed to port in San Diego.

Carnival Triumph Incident 'Poop Cruise' goes Viral...











Image Source: http://www.theguardian.com/world/ shortcuts/2013/feb/15/carnivaltriumph-six-cruises-from-hell





Image Source: http://boards.cruisecritic.com/showthread. php?t=1789392&page=7

Incidents at Sea... Beyond the Titanic and Concordia!



Image Source: http://www.cruiselawnews.com/tags/hearing/

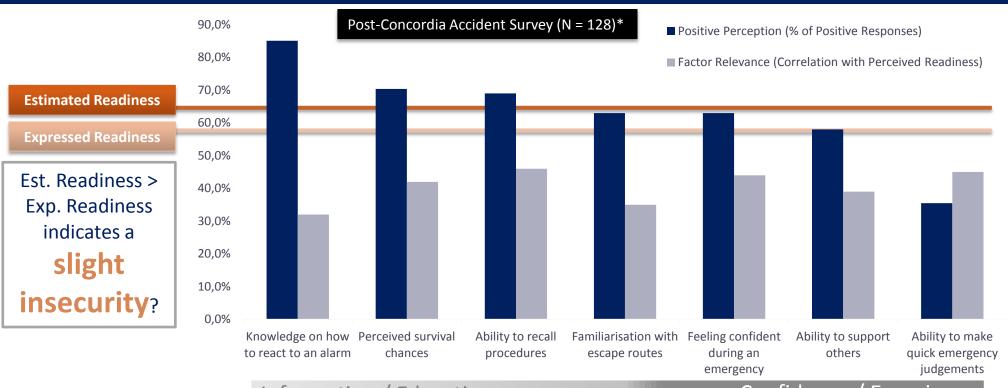
Reported Incidents of Ships Sinking 1990-2013*:

48 in Total

Disabling and major events 1990-2013*:

- 448 in Total
 - 139 Shipboard Fires
 - 106 Ship Collisions
 - 203 Other Disabling Events (Power loss, Propulsion problems, Engine Damage, etc.)

Cruises & Safety Perceptions Do Cruisers feel able to deal with an onboard emergency?



Information / Education

Confidence / Experience

54% of respondents view safety as their **own responsibility** especially when travelling with their family?

53% of respondents do not trust (or cannot assess)

the **Crew's ability** to deal with an emergency... Staff perceived as highly motivated and willing to help, but less highly as able to provide information and communicate emergency info...

Crime at Sea... Sexual Assault*! Not Mentioning Theft, Missing Persons, etc.

"In fact, the risk of sexual assault on a cruise ship is almost twice that of forcible rape in the US, and calculated as 48.065 per 100,000"

(Klein, 2007:68)**

Location	of Incident	(Where Know)	n)
Location	or includin	WILLIAM INTO WI	11

Location of Incident	RCI, 1998–2005 (n = 316)	Celebrity, 1998–2002 (n = 37)
Passenger cabin	36.4%	40.5%
Crew cabin/crew area	7.3%	27.0%
Bar	7.3%	5.4%
Dining room	6.6%	13.5%
Spa	5.7%	2.7%
Corridor	5.7%	2.7%
Deck	5.4%	2.7%
Public area	5.4%	
Disco	5.1%	_
Public bathroom	4.4%	2.7%
Ashore	4.1%	2.7%
Youth program	3.2%	
Elevator	1.9%	
Pool	1.6%	
Total	100.1%	100.1%

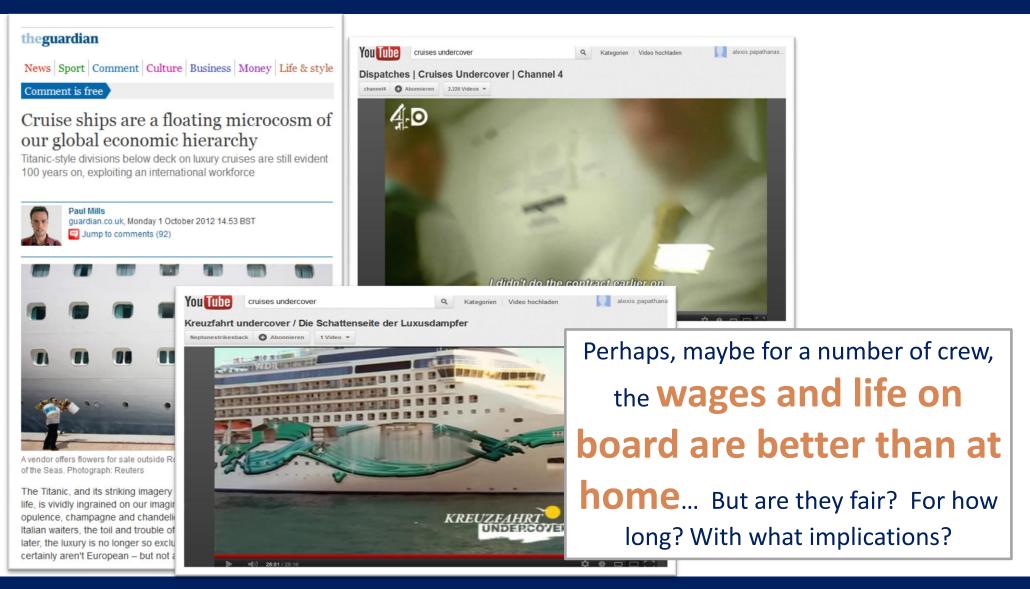
Work Role of Perpetrator

Work Role	RCI, 1998-2005 $(n = 136)^{a}$	Celebrity, $1998-2002$ $(n = 33)^{a}$
Room steward ^b	34.8%	18.2%
Waiter ^b	25.0%	21.2%
Bar worker ^b	13.2%	24.2%
Officer	8.1%	18.2%
Musician/entertainer	5.1%	6.1%
Cleaner	2.9%	3.0%
Youth staff	2.9%	
Security officer	2.2%	3.0%
Casino worker ^b	2.2%	
Galley worker	1.5%	
Other	2.9%	6.1%
	100.8%	100.0%

^{*} Klein, R. & Poulston, J. (2011). Sex at Sea: Sexual Crimes Aboard Cruise Ships. Tourism in Marine Environments. 7(2): 67-80

^{**} Klein, R. A. (2007). Crimes against Americans on cruiseships. Subcommittee on Coast Guard and Maritime Transportation Hosue Committee on Transportation and Infrastructure.

Employment Conditions on board... Media Dramatisation?



The age of online transparency has arrived...What happens at sea does not stay at sea anymore!

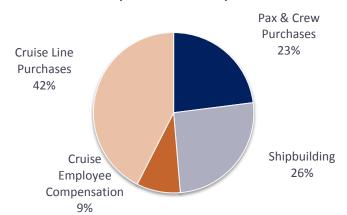
CRUISE TOURISM UTILITY SIDE: WIDER SOCIO-ECONOMIC IMPACTS

Cruise as a Driver of Development... Or Post-Modern Economic Colonialism?

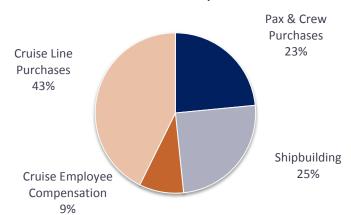


The Cruise Economy 2012: Direct Economic Impact of Cruise Tourism in Europe

Direct Economic Impact of Cruise Tourism in Europe 2012 (Total € 15 Billion)



Direct Economic Impact of Cruise Tourism in Europe 2013 (Total € 16.2 Billion)



Total Economic Output

•Indirect: € 22.2 Billion•Direct: € 16.2 Billion

Employment

Direct: 164.804 Jobs (48%)Induced: 50.415 Jobs (15%)Indirect: 124.198 Jobs (37%)

•Total: 339.417 Jobs

•62.400 of those jobs were European (5.600 on Land)

•€ 10.5 Billion in Employee Compensation

•Average salary = € 31.000

Incoming

- •31.2 Million visitors in European Ports
- Average expenditure per visitor € 62

The Economic 'Winners'

- •3 European countries comprise 45% of the total direct economic benefits of European cruising
- •Italy (€ 3.1 Billion Income): Manufacturing (29%), Employment (16%), Tourism (25%)
- •UK (€ 2.58 Billion): Business & Financial services (25%), Tourism (19%) Employment (22%)
- •Germany (€ 1.7 Billion): Manufacturing (40%), Tourism (18%), Employment (6.5%)

A couple Cruise Press Extracts... A US Cruise Line Exodus from Europe?





"Therefore we (Carnival) have decided to **keep** ships in North America during this period rather than place capacity in Europe in 2014."*

"Industry giant Royal Caribbean only will have seven ships in Europe in 2014, not eight as originally planned, as **soft demand in the region** prompts the company to cut back." **

"Both Royal Caribbean Cruises and Princess Cruises are reducing capacity in the Mediterranean. Royal Caribbean said it plans to reduce 2014 year-on-year capacity in Europe by a further 10 per cent." **

^{*} http://www.usatoday.com/story/cruiselog/2013/05/13/carnival-cruise-europe-2014/2156097

^{**} http://www.usatoday.com/story/cruiselog/2013/05/13/carnival-cruise-europe-2014/2156097

^{***} http://www.telegraph.co.uk/travel/cruises/cruise-news/10054416/Carnival-Cruise-Lines-abandons-Europe.html

Understanding US Cruise Line Strategic Actions The 'Engine' of EU Cruise Sector Growth?

"The majority of the major cruise lines that are active in North America, like Carnival and Royal Caribbean, were drawing a significant amount of their passenger boardings from the European source market..."*

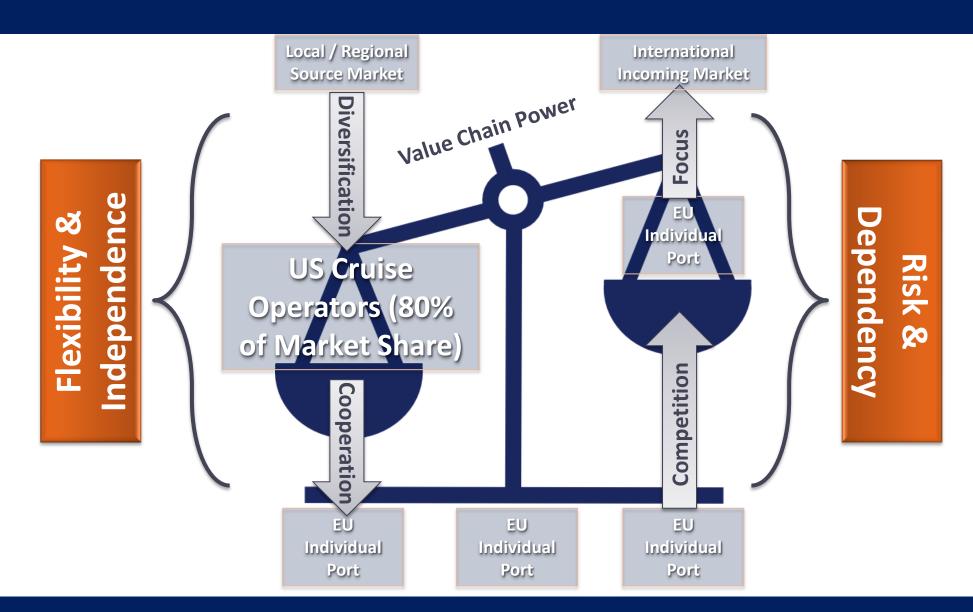


"The bigger lines are taking advantage of the reality that cruise line management can make prudent moves and shift vessels around..."*

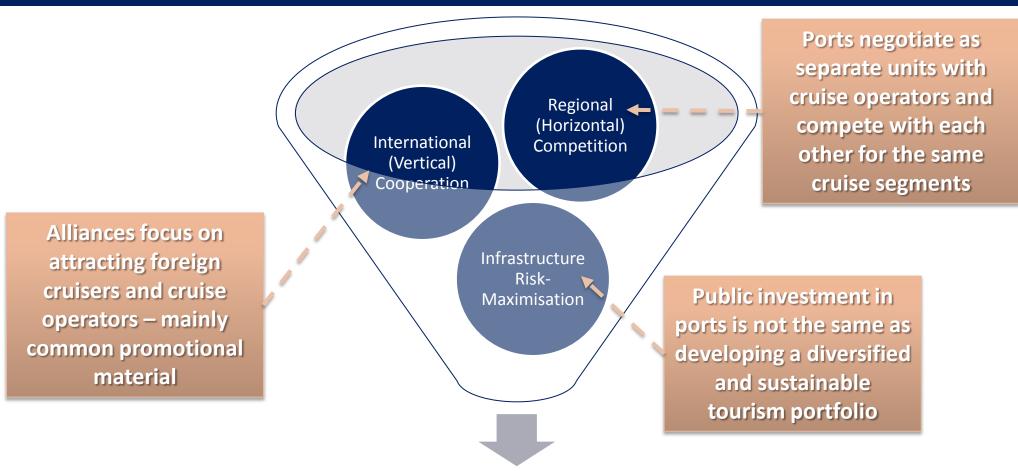


US Cruise
Operator Risk
Man/t &
Opportunism

The As-Is Situation Simplified...

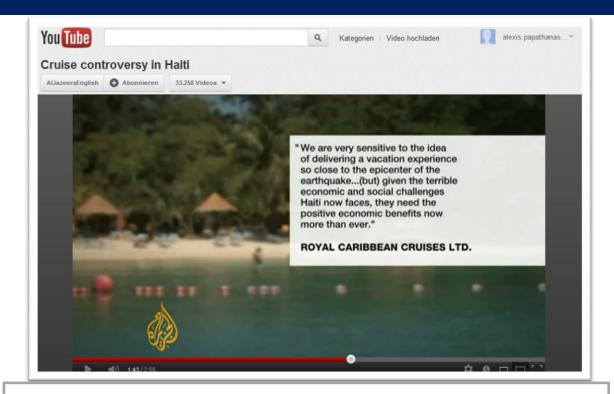


Emergent Port Strategies ... Are we really talking about a long-term strategy ?!?!



EU Port Reduced Vertical Power and Increased Upstream Dependency in the Cruise Value Chain

Cruise Contribution to Local Communities?



Cruisers may spend an average of 70 Euros at the ports of call. Question is if the money spent at port covers the indirect costs and if it goes into the wallet of the locals

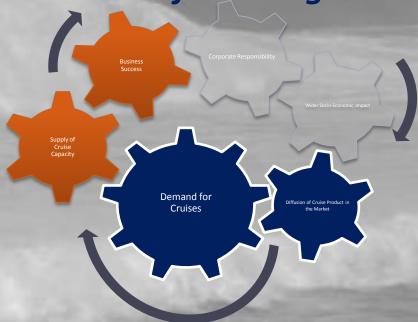


limiting the number of cruise ships. They have our support

What is the true value of cruise tourism for the wider community?

SYNTHESIS: BRINGING IT ALL TOGETHER

Some Food for Thought....



Summary of Key Points

Cruise Demand Side

- Passenger growth is not indefinite
- Continuous ticket price decrease
- Transformation of cruise image
- Web 2.0 communications
- The first signs of maturity are beginning to show

Cruise Supply Side

- Industry Concentration
- Mega-liners
- Standardisation & Costsavings
- Differentiation Challenges
- Operational Complexity
- Declining profitability

Utility Side

- Negative Publicity
- Questionable benefits local communities
- Destination vs. Cruise
 Operator (Power Imbalance)
- Risk of Spill-over Effects in Demand:
 - Flags of convenience & tax evasion
 - 'Sweatships'
 - Pollution & Overcrowding

Diffusion / Marketing

Growth Side Effects

Product Development & Innovation

Impact on Internal / External Diffusion Effects

Food For Thought...

Cruise Demand Development

- What options do cruise operators have to revive the cruise product life-cycle?
- Do you see promising niches or innovations within the boundaries of the cruise industry?
- Who is the future cruiser? What are the implications for cruise tourism distribution?

Cruise Supply Side

- Where do you see the product philosophy of cruises going?
- What do you think will be the next trend in cruise vessels?
- How do you see the future development of the interface between cruise tourism and other tourism forms

Cruise Tourism Utility

- How can destinations deal with the power imbalance in the supply chain?
- Under which conditions can destinations benefit from cruise tourism, given its externalities?
- How are cruise operators to deal with the new age of online transparency, rapid diffusion of information, and negative publicity?

Thank You for your Attention



Hochschule Bremerhaven _______ Prof. Dr. Alexis Papathanassis Cruise Management & e-Tourism An der Karlstadt 8 · Raum S 5.33 Privat: D-27568 Bremerhaven Lohmannstraße 16 Telefon +49 (0) 471 48 23-532 D-27568 Bremerhaven Telefon +49(0)1736132565 Telefax +49(0)4714823-285 E-mail: apapathanassis@hs-bremerhaven.de Telefax +49 (0) 721151528170 www.cim.hs-bremerhaven.de E-mail: alexis@papathanassis.com www.papathanassis.com www.cruiseresearchsociety.com

Research Functions:

- Founder & Chairman of the Cruise Research Society (http://www.cruiseresearchsociety.com)
- Co-Director of the Institute for Maritime Tourism (IMT) (http://www.imt.hs-bremerhaven.de/)

Editorial Board Member of the Journal of the European Journal of Tourism, Hospitality and Recreation (EJTHR) – (http://www.ejthr.com/)

Reviewer of the Tourism Management Journal (http://journals.elsevier.com/02615177/tourism-management/)

Administrative Functions:

- Dean of Studies Faculty of Business & Economics
- Chairman of the CIM Examinations Committee
- Member of the CIM Study Affairs Committee