QUADRANTE SERVIZI

SVILUPPI ICT

LE PIATTAFORME TELEMATICHE COME STRUMENTO DI EFFICIENZA PER
LE DIVERSE MODALITÀ DI TRASPORTO DELLE MERCI

QUADRANTE SERVIZI MILESTONE

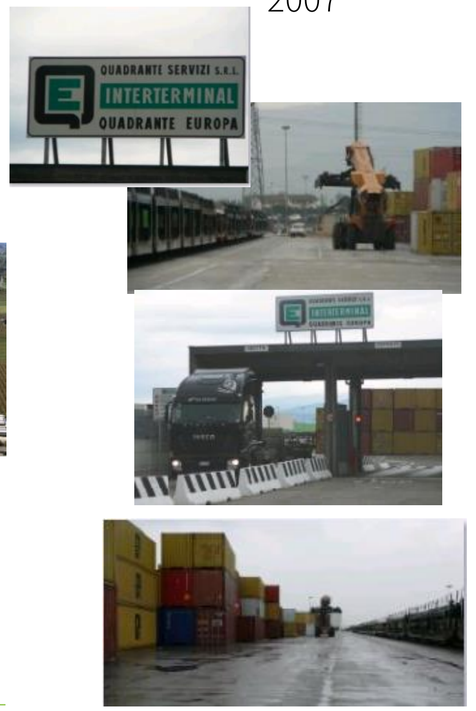
EVOLUZIONE DEI SERVIZI

FONDAZIONE
1988

RETE TELEMATICA
1999

SERVIZI FERROVIARI
2002

SERVIZI TERMINALISTICI
2007



UIRNET
2012

WWW.QUADRANTESERVIZI.IT

QUADRANTE SERVIZI MILESTONE

EVOLUZIONE DEI SERVIZI

FONDAZIONE RILVE
2014

Rete Intermodale Logistica

RILVE

Verona Quadrante Europa

NUOVA SALA CED
2015

KERNEL DI LAVORO COWORKING SUL TRASPORTO
2016

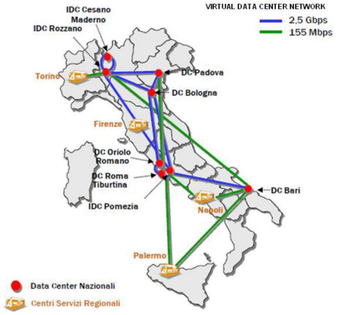
…..

SVILUPPI VERSO IL 2020

ESTENSIONE RETE FIBRA OTTICA

CREAZIONE NAP

DATA CENTER E CENTRI SERVIZIO



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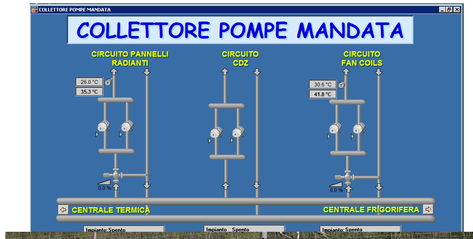
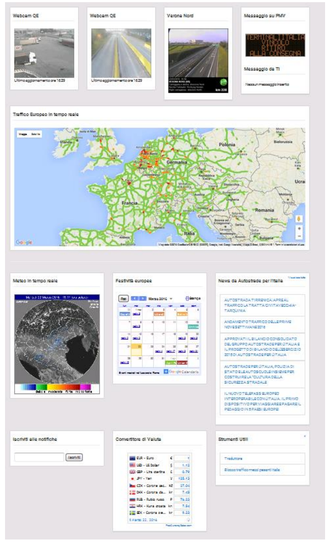
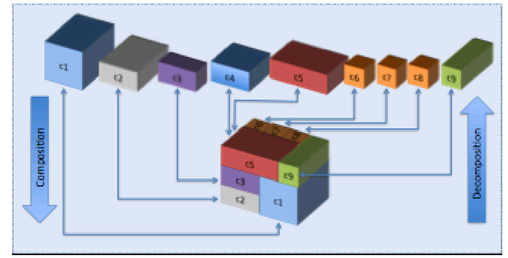
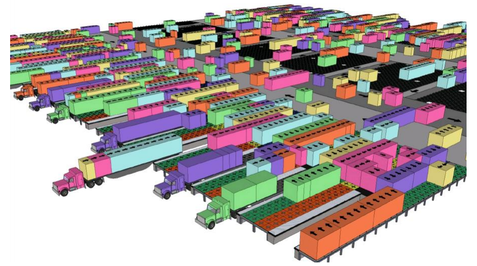


BIG DATA



PHYSICAL INTERNET





TESI: CONVERGENZA DEI DUE MONDI

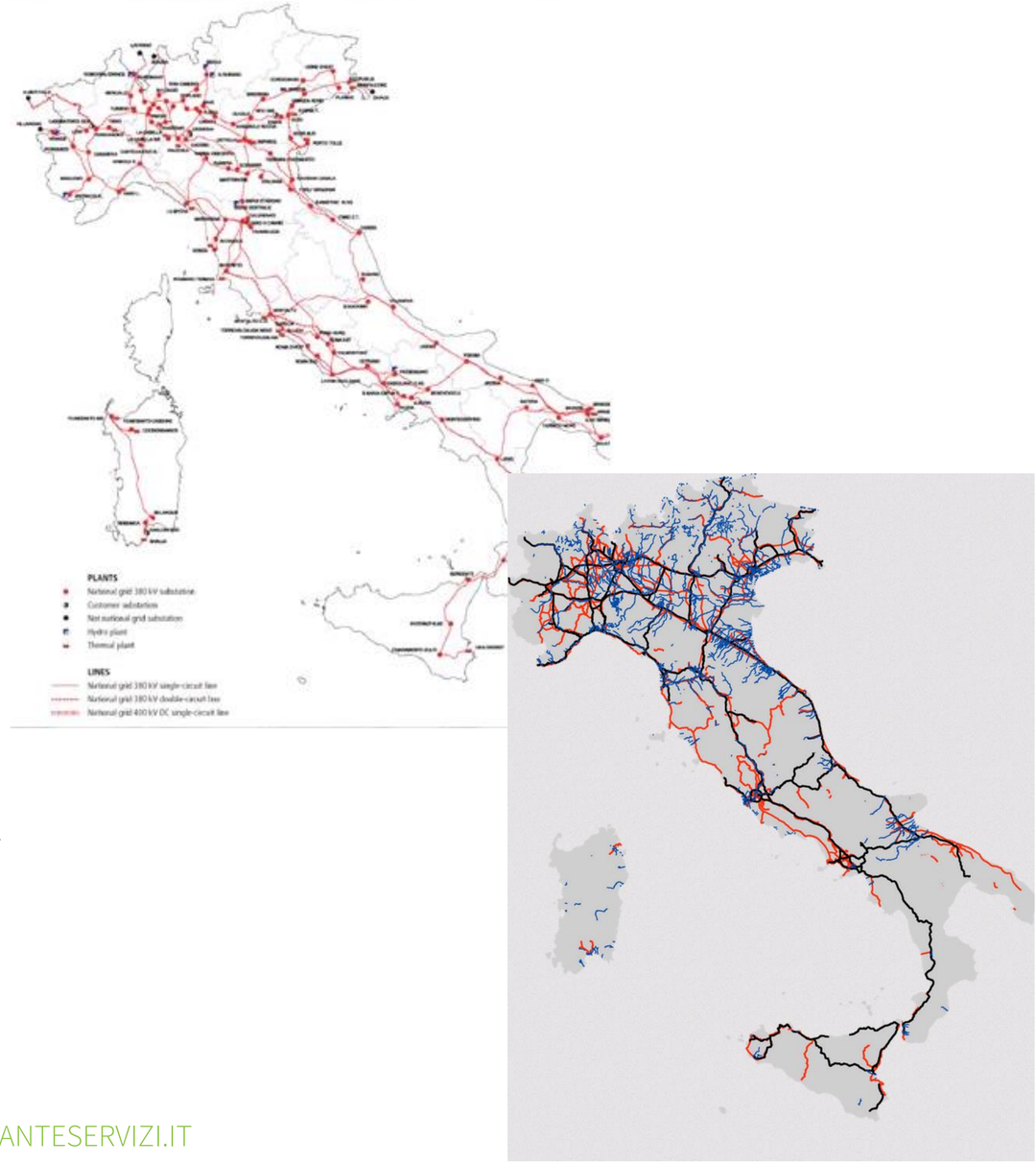
RETE DATI

LE RETI DATI HANNO MOLTE ANALOGIE CON LE RETI DI TRASPORTO

- LA RICERCA DELL'OTTIMIZZAZIONE (ES. ALGORITMO COMMESSO VIAGGIATORE)
- RETI A PACCHETTO
- RETI A COMMUTAZIONE DI CIRCUITO
- RETE ITALIANA E' «CALDERA CENTRICA»

RETE DI TRASPORTO

- LA RICERCA DI OTTIMIZZAZIONE NEI TRAGITTI MIGLIORI
- ATTUALE MODELLO SULLA LOGICA DEL VIAGGIO COMPLETO
- FUTURO DEL TRASPORTO E' INCENTRATO NON SUL VIAGGIO MA SUL PACCHETTO (COLLO) E SUGLI HUB DI SMISTAMENTO
- LA RETE ITALIANA HA DIVERSI HUB MA POCHI COLLEGAMENTI FERROVIARI

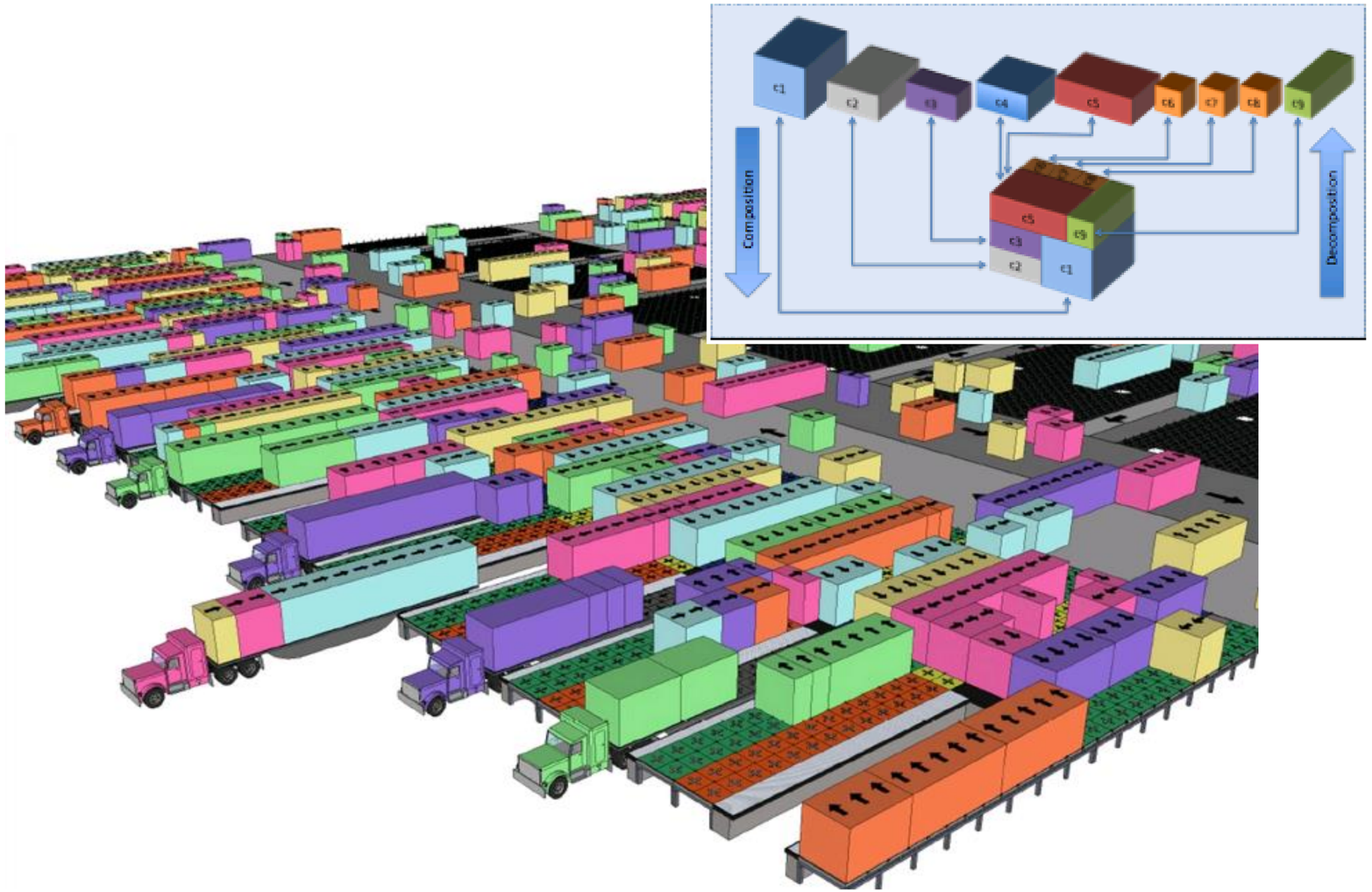


PHYSICAL INTERNET

Cos'è?

DEFINIZIONE

Nella logistica, Internet fisica è un sistema logistico globale aperto fondato sulla interconnettività fisica, digitale, e le operazioni, tramite incapsulamento, interfacce e protocolli. Internet fisica è destinato a sostituire modelli logistici attuali (target 2050)



http://physicalinternetinitiative.org/

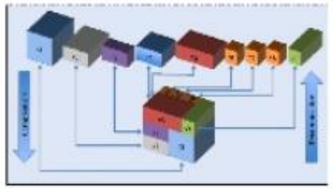
PHYSICAL INTERNET

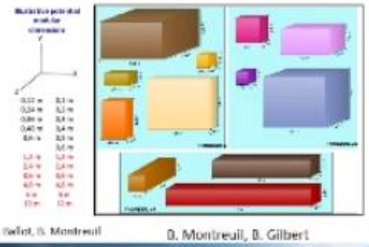
Cos'è?

Physical internet manifest

Physical encapsulation of goods in π-containers
Modular, ecofriendly, smart & standardized worldwide

- Merchandise is unitized as content of a π-container and is not dealt with explicitly by PI
- Modular dimensions from cargo container sizes down to tiny sizes
- Conceived to be easily flowed through various transport, handling & storage modes & means
- Easy to handle, store, transport, snap, interlock, load, unload, construct and dismantle, compose and decompose
- Light, made of environment friendly materials, with minimal off-service footprint
- Smart tag enabled, with sensors if necessary: proper identification, routing and maintaining
- Various usage-adapted structural grades
- Conditioning capabilities as necessary (e.g. temperature)
- Sealable for security purposes

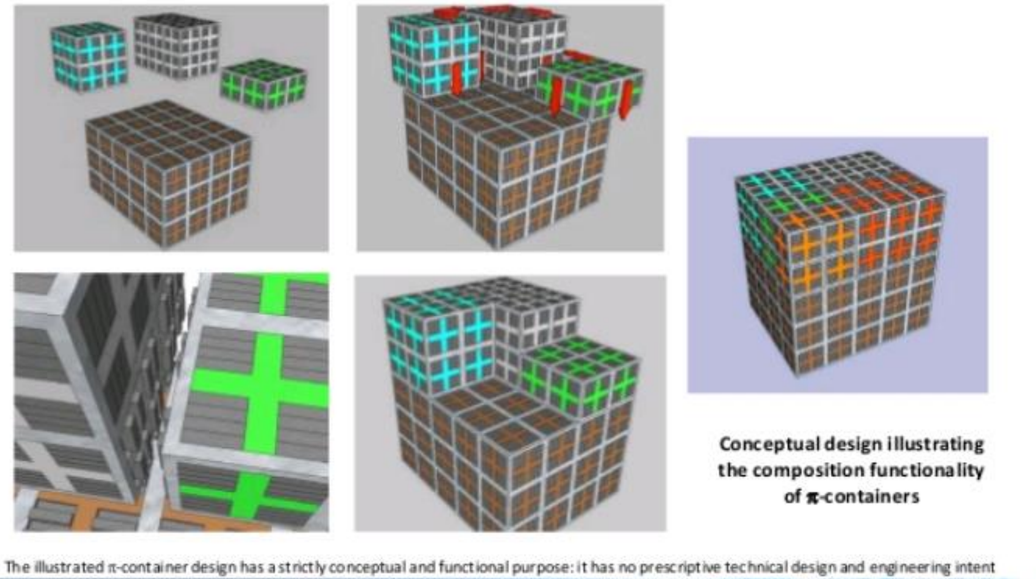




I. Gallot, B. Montreuil D. Montreuil, B. Gilbert

Physical internet manifest

Physically encapsulation of goods in π-containers
Easy to compose into composite containers, then to decompose



Conceptual design by Benoit Montreuil and Marie-Anne Côté
CIRRELT, Université Laval, Québec, Canada, 2012

Conceptual design illustrating the composition functionality of π-containers

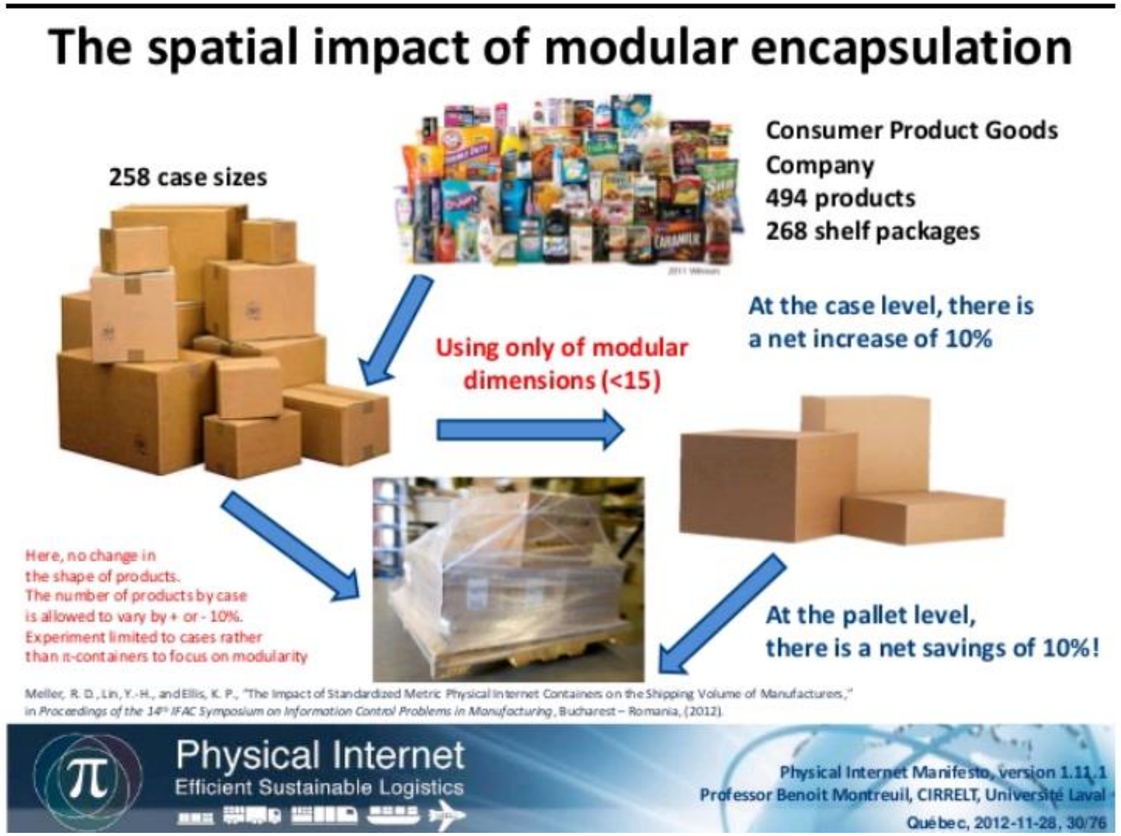
The illustrated π-container design has a strictly conceptual and functional purpose: it has no prescriptive technical design and engineering intent

http://physicalinternetinitiative.org/

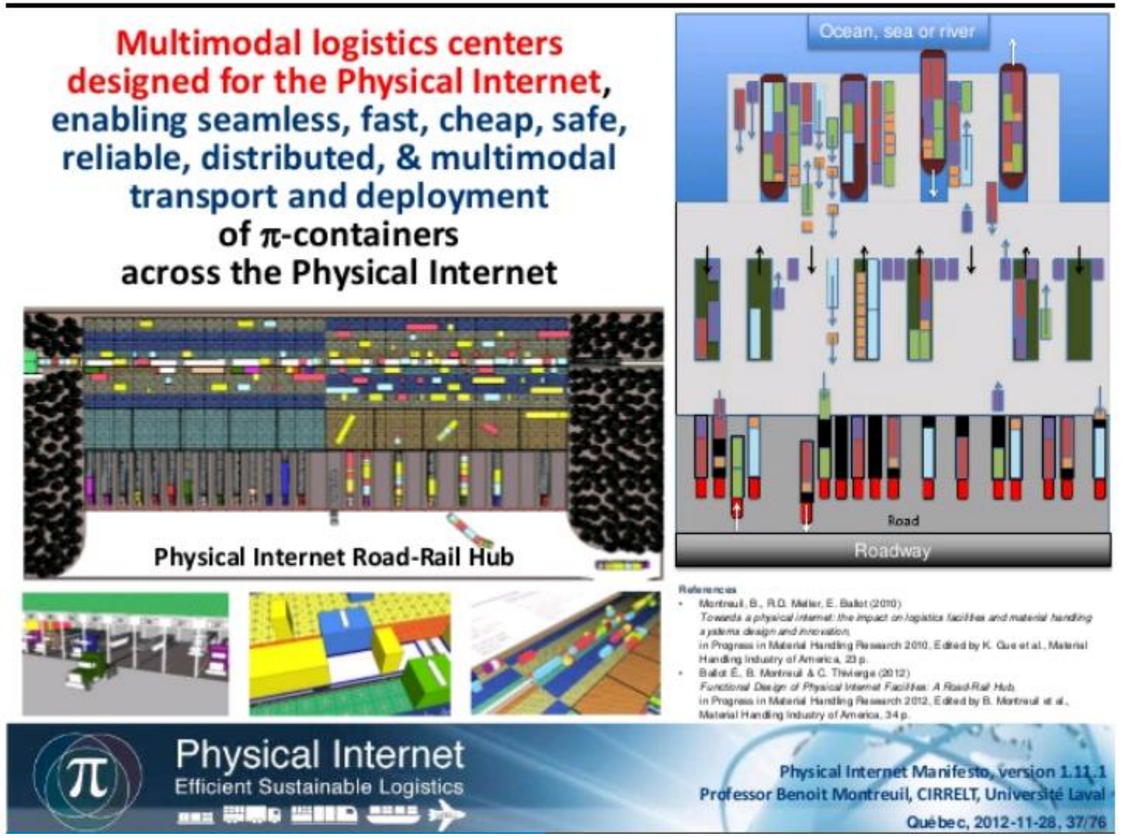
PHYSICAL INTERNET

Cos'è?

Physical internet manifest



Physical internet manifest



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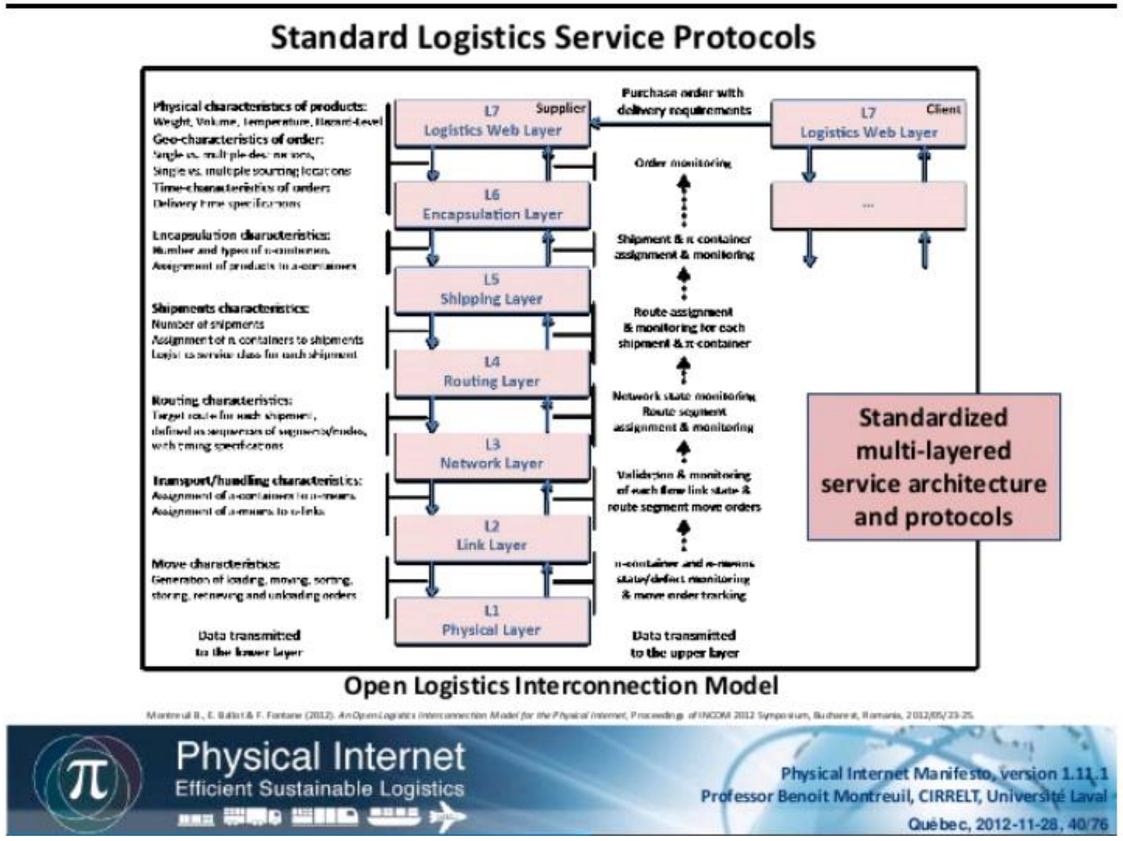
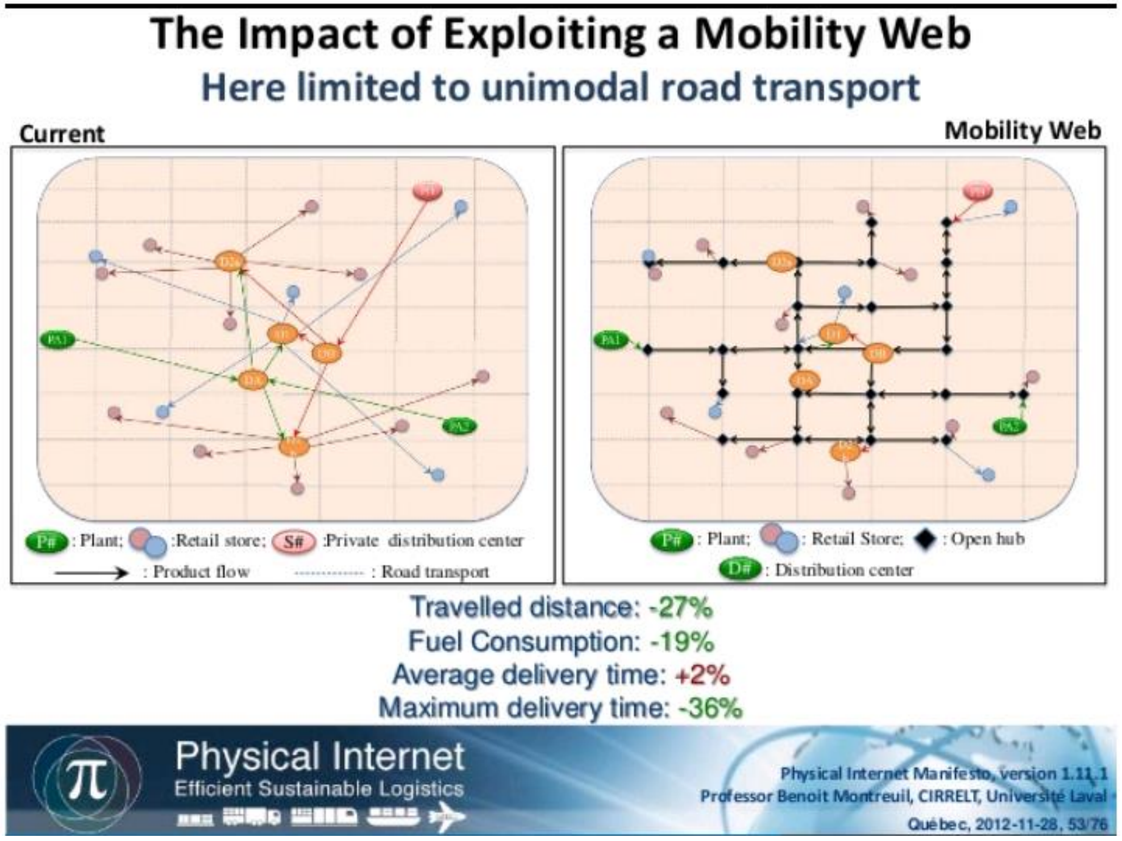
PHYSICAL INTERNET

Cos'è?

Physical internet manifest



Physical internet manifest



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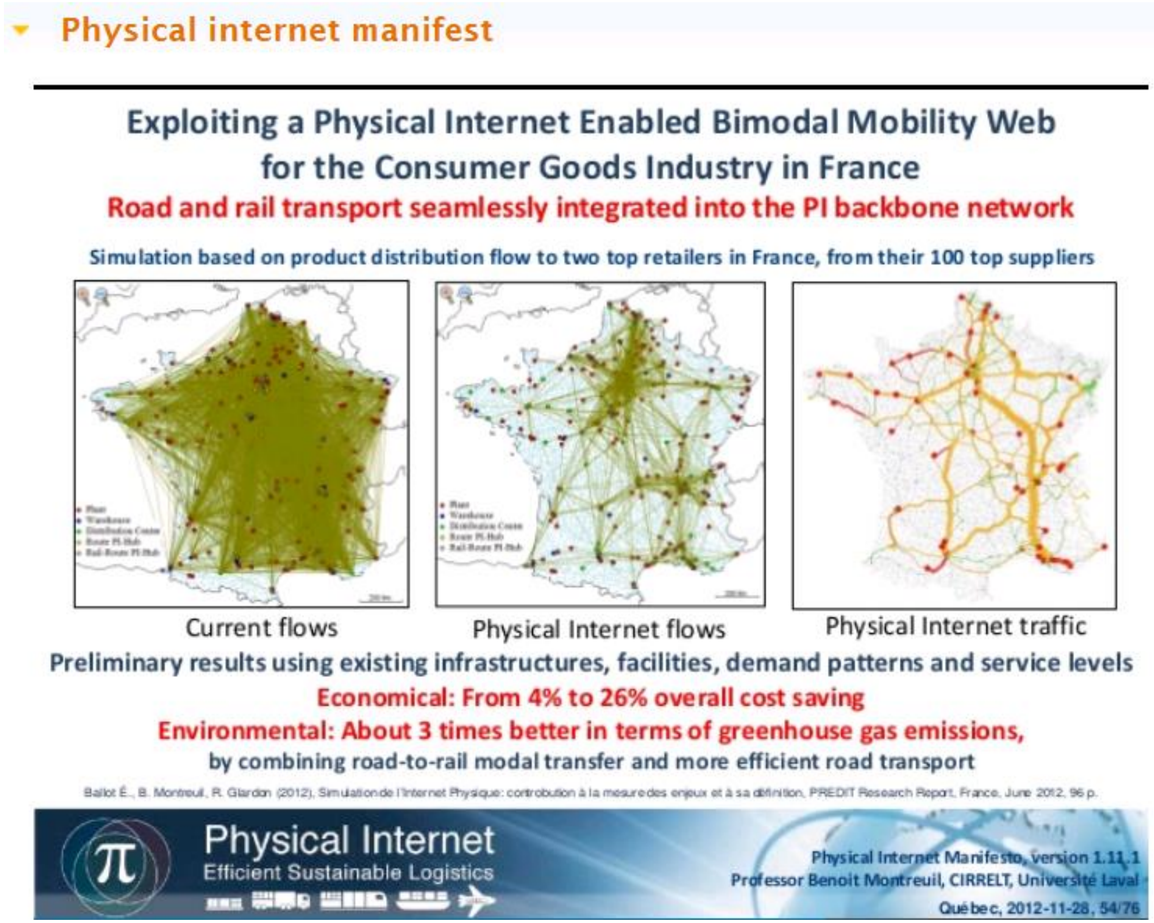
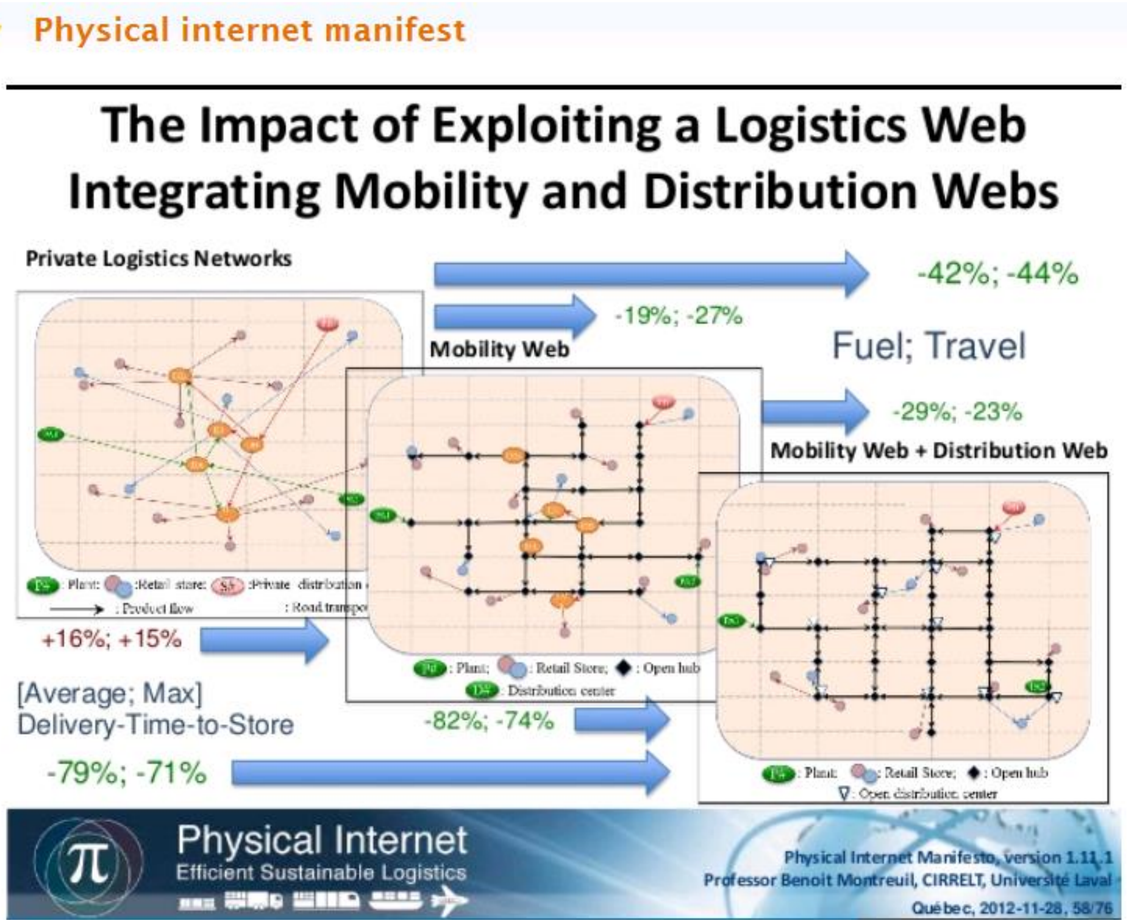
PHYSICAL INTERNET

Cos'è?





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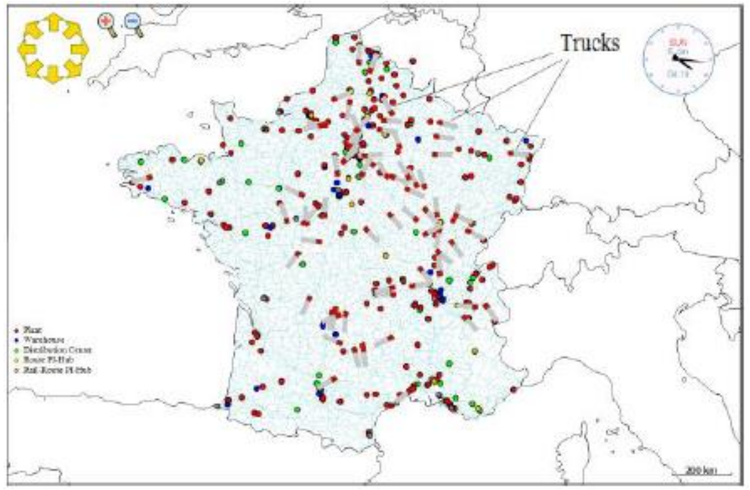


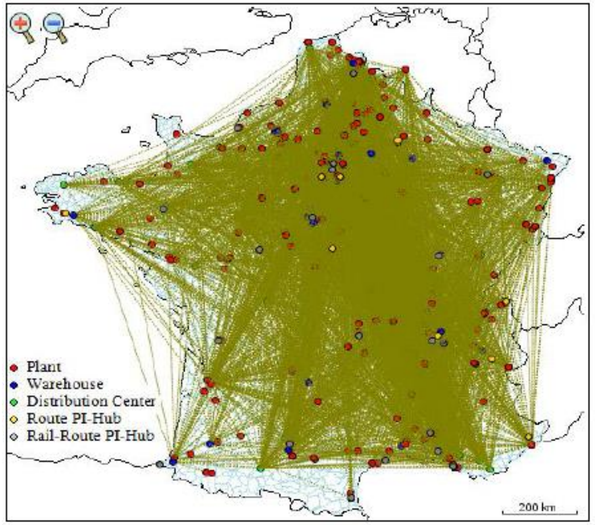


Figure 5 : Flow of goods in the existing mobility web

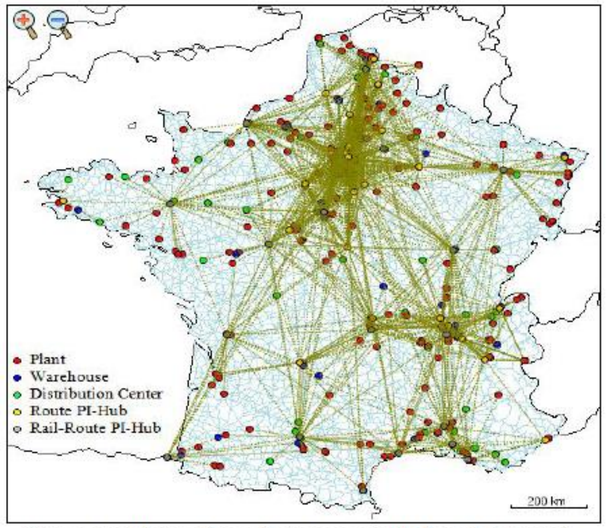


Figure 6 : Flow of goods in a π-enabled mobility web

CASO DI STUDIO

LA MODELIZZAZIONE DELLA INTERNET FISICA SI APPOGGIA SU STUDI CHE PREVEDONO UNA EFFICIENZA RISPETTO AGLI ATTUALI MODELLI OLTRE IL 30%

Simulation of the Physical Internet Contribution in Solving Logistics Problems: Application on Retail Industry in France

EFFICIENZA

ANALOGIA CON L'EFFICIENZA INTRADOTTO DALLA COMMUTAZIONE A PACCHETTO NELLE RETI INTERNET RISPETTO ALLA COMMUTAZIONE DI CIRCUITO.

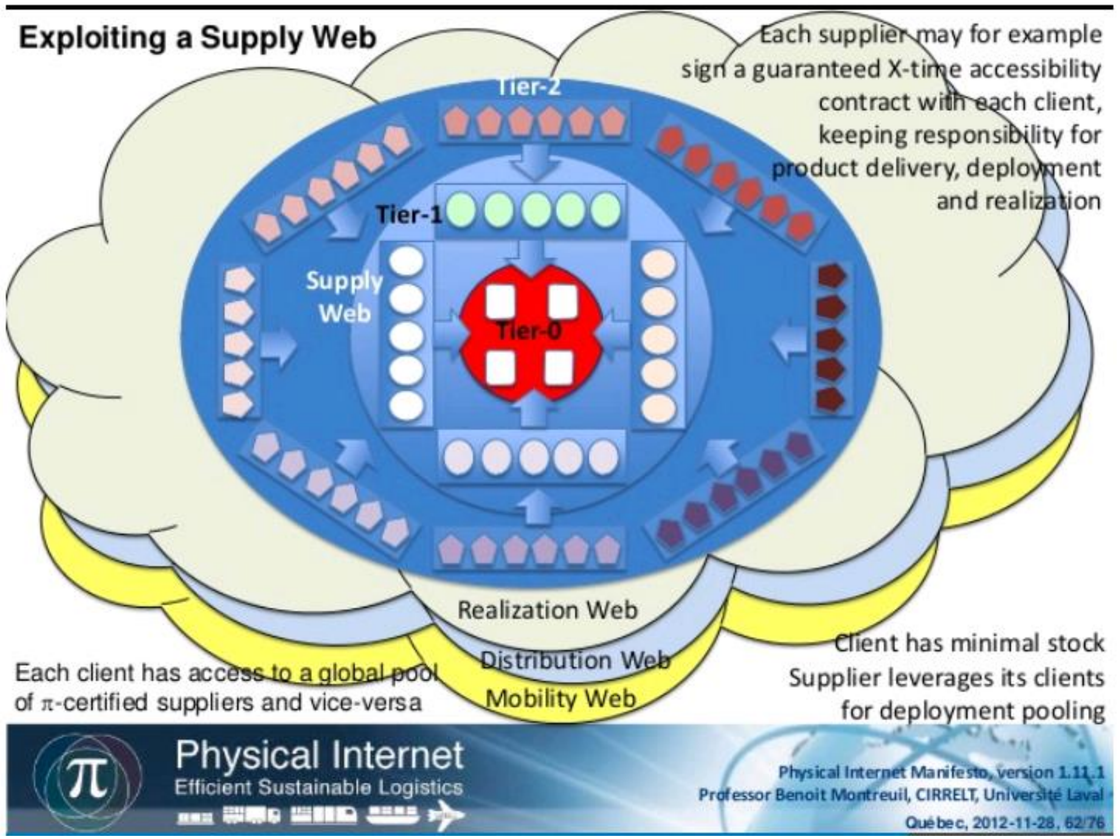
ANALOGIA TRASPORTO – RETI DATI

NON PIU' VIAGGI VUOTI/CIRCUITI INUTILIZZATI

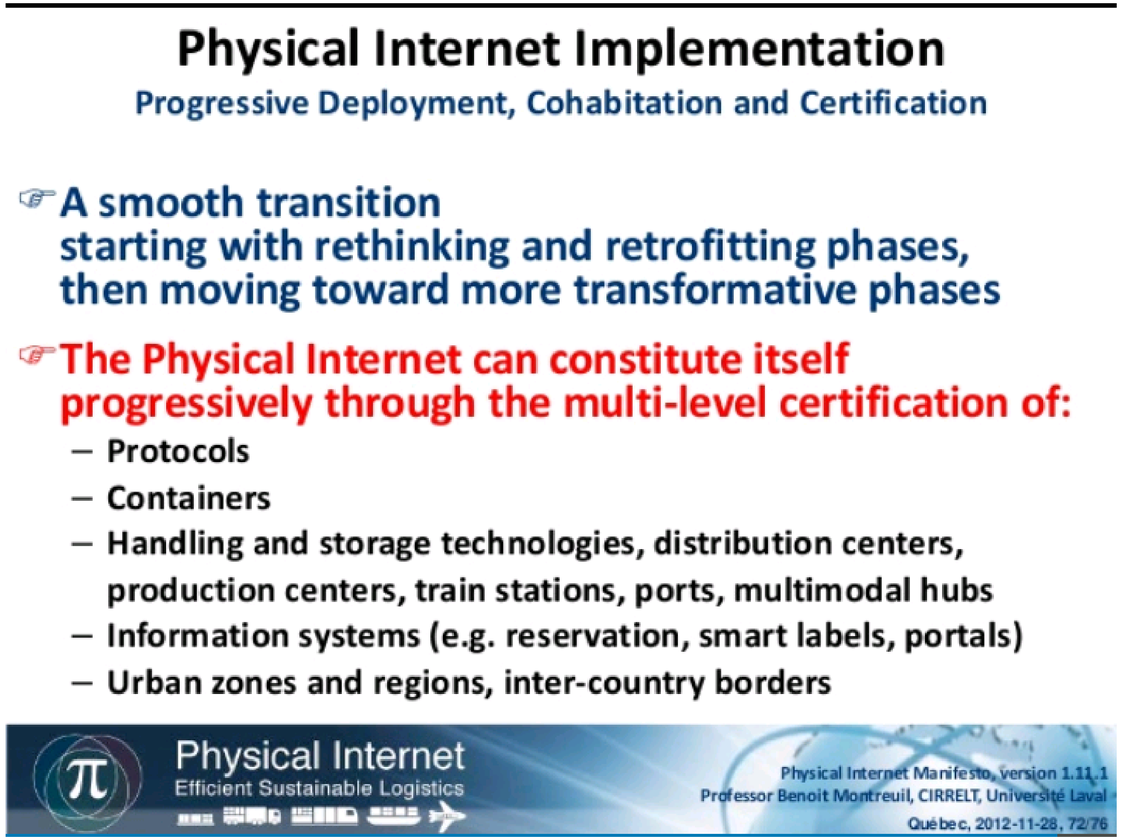
PHYSICAL INTERNET

Cos'è?

Physical internet manifest



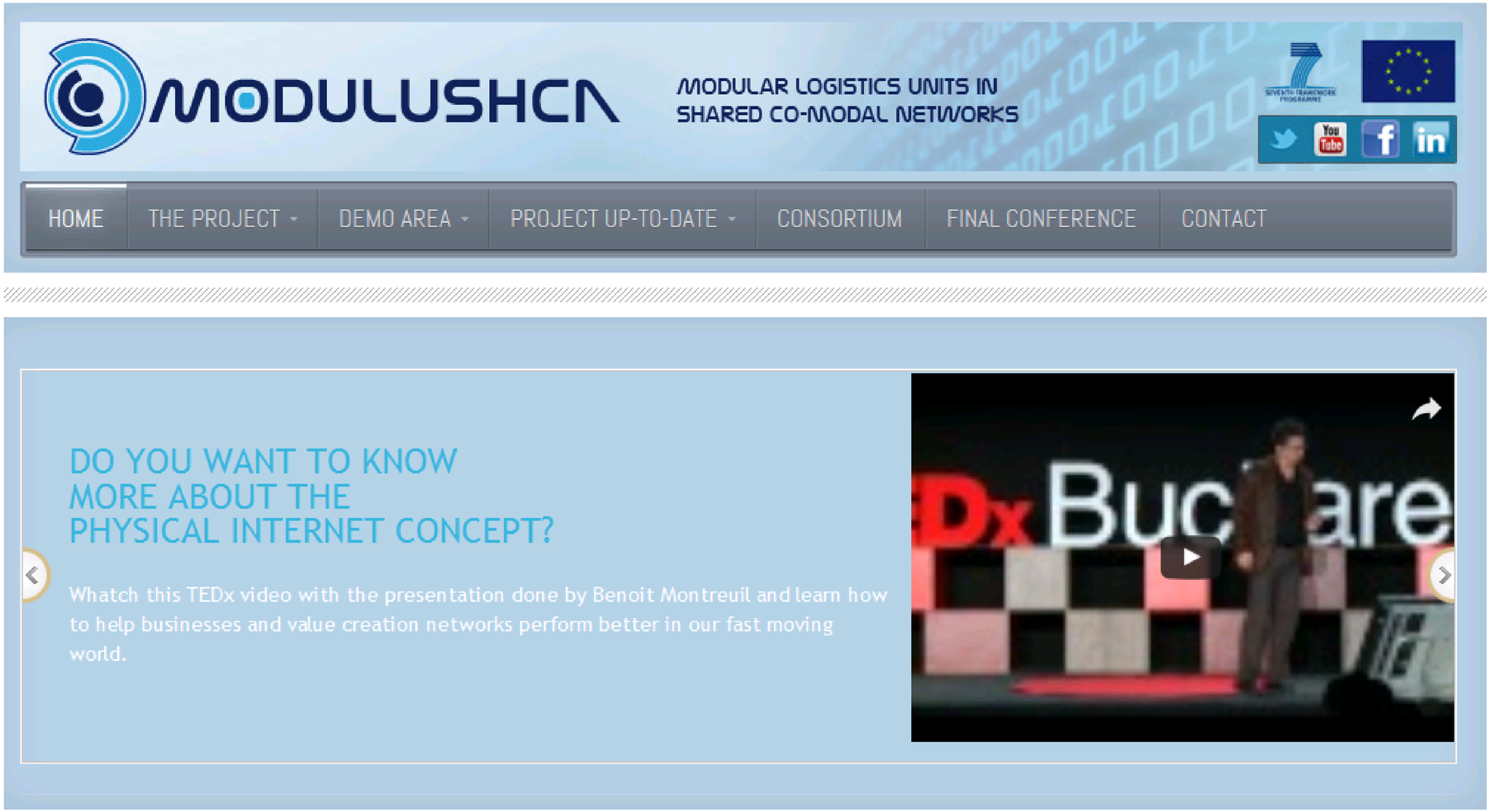
Physical internet manifest



http://physicalinternetinitiative.org/

MODULUSHCA

Cos'è?



http://www.modulushca.eu/

PHYSICAL INTERNET

alice | Alliance for Logistics Innovation through Collaboration in Europe

LOGIN INTRANET

Search

home | roadmaps | members | how to join | news & events | about alice | contact

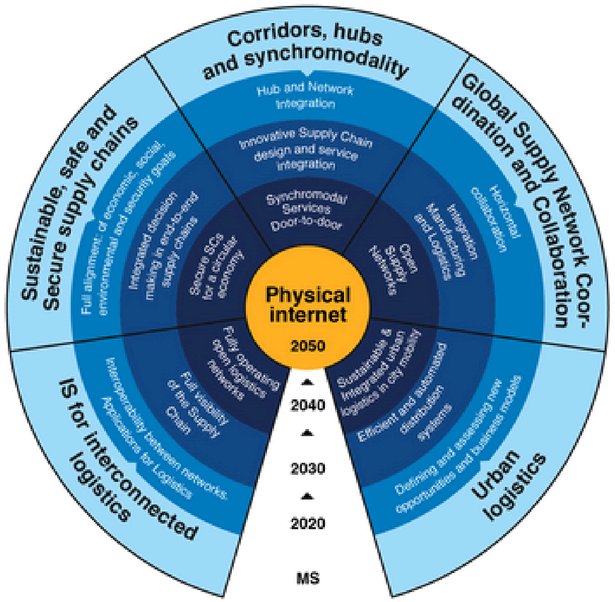
ETP-Alice

The European Technology Platform ALICE is set-up to develop a comprehensive strategy for research, innovation and market deployment of logistics and supply chain management innovation in Europe.

The platform will support and assist the implementation of the EU Program for research: Horizon 2020.

ALICE is based on the recognition of the need for an overarching view on logistics and supply chain planning and control, in which shippers and logistics service providers closely collaborate to reach efficient logistics and supply chain operations.

> read more



Click to zoom

Watch video Physical Internet

PHYSICAL INTERNET

EVENTI

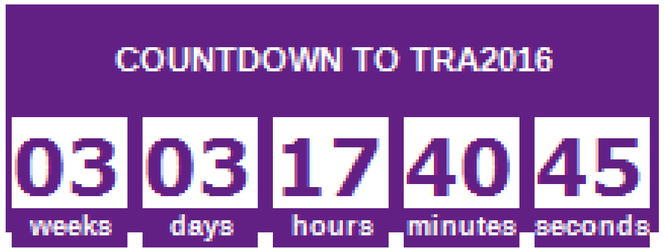
TRA
TRANSPORT RESEARCH ARENA

6th European Transport Research Conference

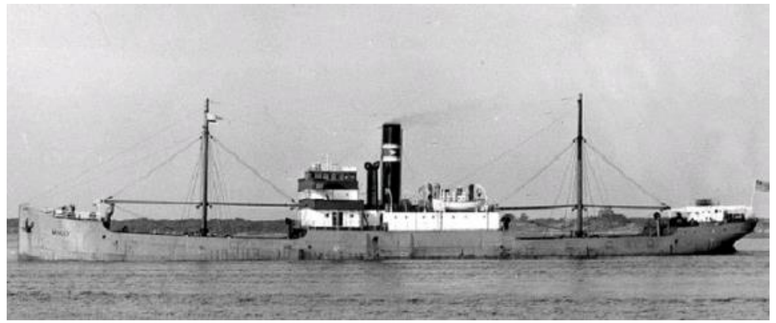
MOVING FORWARD:

Innovative Solutions for Tomorrow's Mobility

PGE Narodowy, Warsaw, Poland - 18-21 April 2016

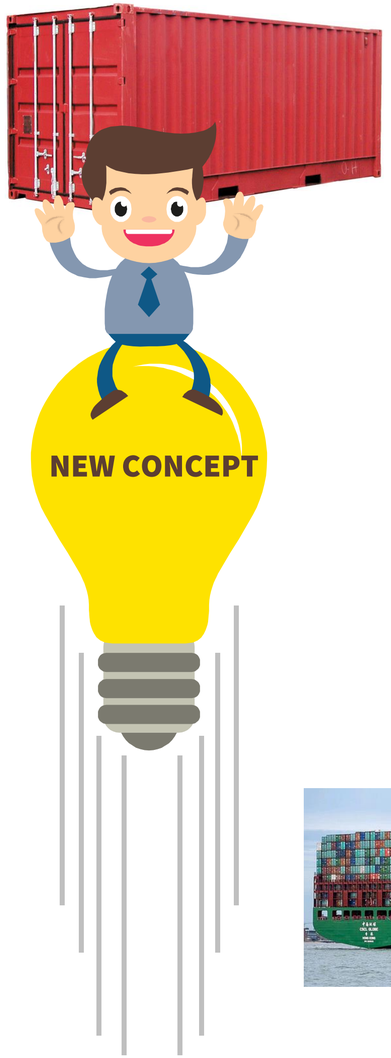


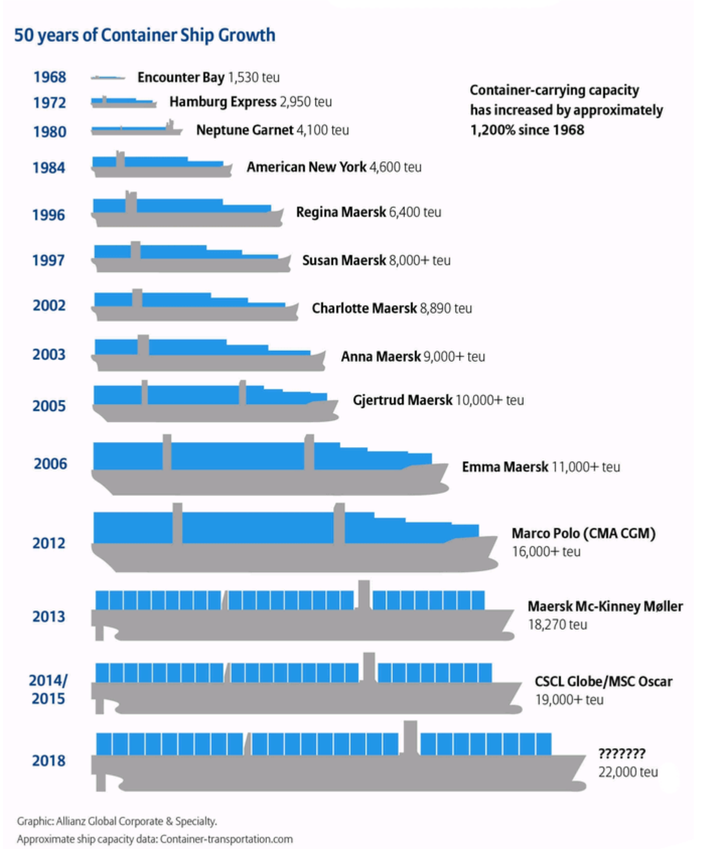
APPLYING NEW CONCEPT



LO STANDARD IMPOSTO SUI TRAFFICI MARITTIMI NEGLI ANNI 70 HA PERMESSO ENORMI ECONOMIE E I VECCHI MODELLI SEMBRANO LONTANI SECOLI

LO STESSO POTRA' ACCADERE CON LO STANDARD DELLE UNITA' DI TRASPORTO IN DISCUSSIONE CON LA PHYSICAL INTERNET





INFRASTRUTTURA TECNOLOGICA

ANNI DI SVILUPPO TECNOLOGICO NEUTRALE CON AZIENDE, OPERATORI E ENTI A LIVELLO NAZIONALE

KNOW HOW

UNA CONOSCENZA FONDATA SUL LAVORO QUOTIDIANO SULL'ESPERIENZA DI 28 ANNI DI PRESENZA IN OGNI FASE DI SVILUPPO

QUADRANTE SERVIZI

LA VISIONE

LABORATORIO

UN CENTRO LOGISTICO CHE POSSA ATTIRARE RISORSE PER APRIRE UN DIBATTITO IN ITALIA SUL TEMA DELL'INTERNET FISICA

SPAZI ATTREZZATI

SALE SERVER – SALE NAP PER OPERATORI DI TELECOMUNICAZIONI E DI COWORKING PER CREARE UN PRIMO NUCLEO ITALIANO DI RICERCA

PERCHE’ CI CREDIAMO ?

DEVE PARLARE ITALIANO

E’ SOSTENIBILE

E’ SEMPLICE MA HA L’ECONOMITA’ NECESSARIA

STANDARD MONDIALE APERTO

CONVERGENZA

RETE INTERNET

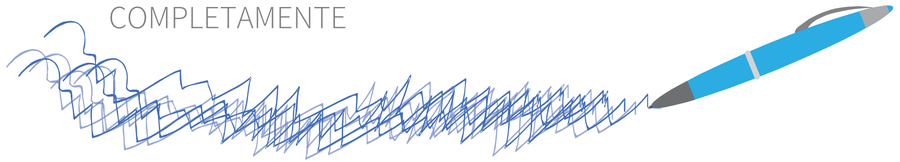
INDISPENSABILE PER OGNI NUOVO SVILUPPO NEL SETTORE TRASPORTO SIA ULTIMO MIGLIO CHE PRECEDENTE

PHYSICAL INTERNET

INDISPENSABILE PER UN FUTURO PIU' SOSTENIBILE E VOLANO PER LA NUOVA ECONOMIA

ESEMPIO

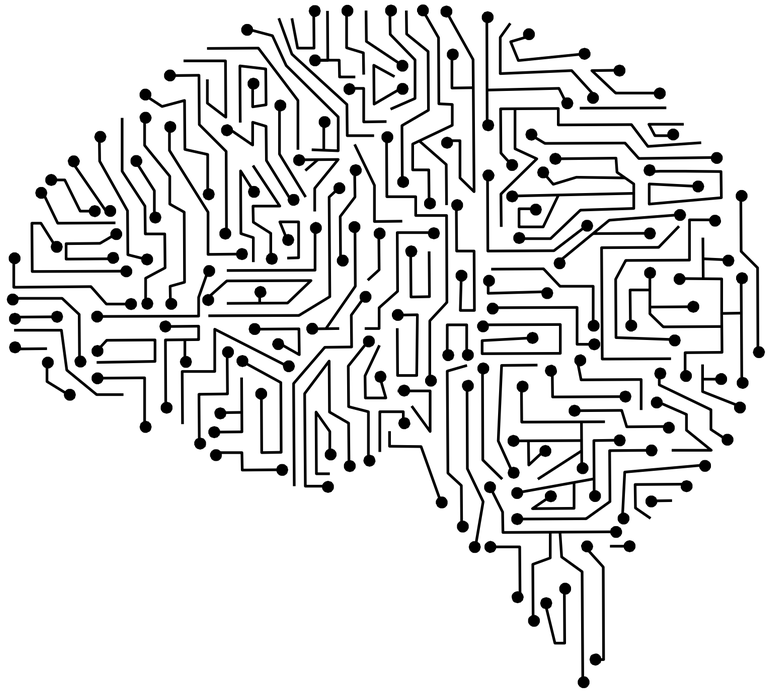
SOTTO GLI OCCHI DI TUTTI E' L'E-COMMERCE E IL SUO FUTURO CHE ANCORA NON E' STATO SCRITTO COMPLETAMENTE



ULTIMO MIGLIO

QUADRANTE EUROPA E’ SPECILIZZATO NELLA LOGISTICA INDUSTRIALE E VERSO LA GRANDE DISTRIBUZIONE SOPRATTUTTO NELLA DIRETTIVA CON IL NORD EUROPA

LA LOGISTICA DELL’ULTIMO MIGLIO STA VIVENDO PROFONDI CAMBIAMENTI E CON ALTISSIMA VELOCITA’



SHARED ECONOMY

LOCKER

PUNTI DI RITIRO

APP PER SMARTPHONE

FRAMEWORK PER LA CONSEGNA

GRAZIE DELL'ATTENZIONE