

Aplicación de Salud Laboral en el ámbito de la Industria 4.0:

Fit4Work

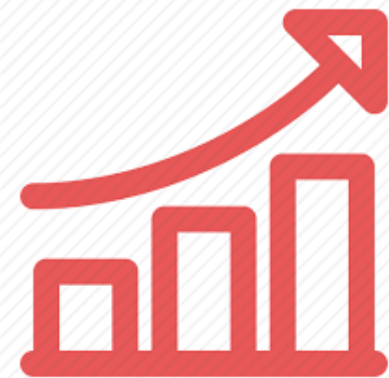
June Sola

- Asociación Innovalia -

1. Breve Introducción
2. Proyecto FITMAN
3. Sistema Fit4Work
4. Caso de Referencia
5. Aplicación Fit4Work en TRW
6. Conclusiones
7. Video del Caso de Referencia
8. Iniciativa WATIFY

Breve Introducción

- Los trabajadores de la UE están **envejeciendo**.
- Las **intervenciones ergonómicas** son las más comunes en la industria.
- Las intervenciones ergonómicas resultan las **más rentables** (respecto a la salud y productividad)



Proyecto FITMAN

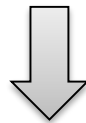
- Proyecto de Investigación y Desarrollo Europeo
- Tecnologías de la Internet del Futuro para el sector de la Fabricación
- 10 casos de uso en diversos sectores y países



Proyecto FITMAN



Fábrica Segura y Saludable



Fortalecimiento de los trabajadores



Gestión de riesgos ergonómicos

Sistema Fit4Work

Fortalecimiento de los trabajadores

Gestión de riesgos ergonómicos

Herramienta para diseñar Estrategias de Prevención Flexibles y Personalizadas

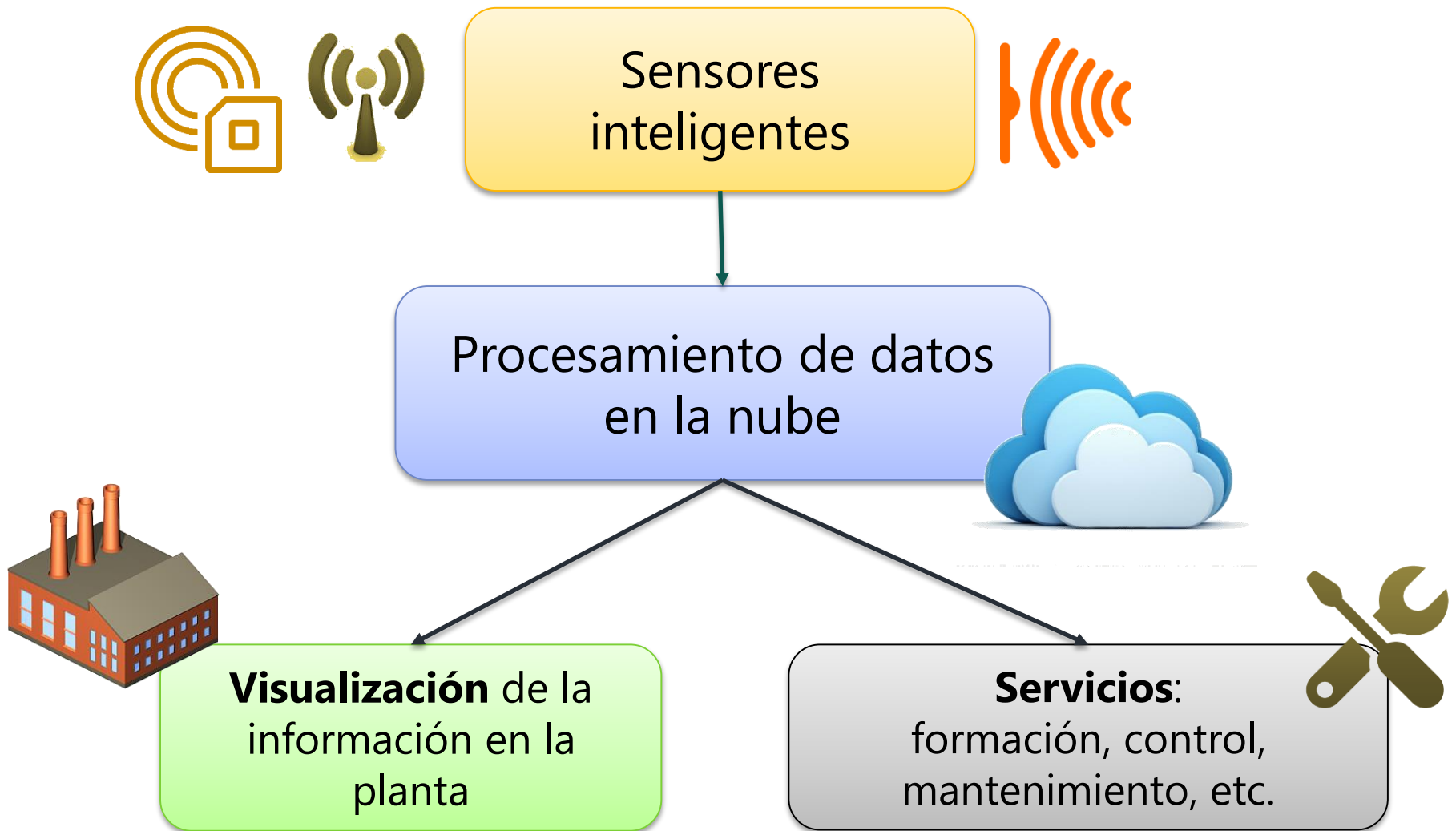
Operario

Auto-evaluación en planta

Técnico de prevención

Acceso y gestión de la información capturada

Sistema Fit4Work



Caso de Referencia



Usuario final



Proveedor IT



Operario de
línea

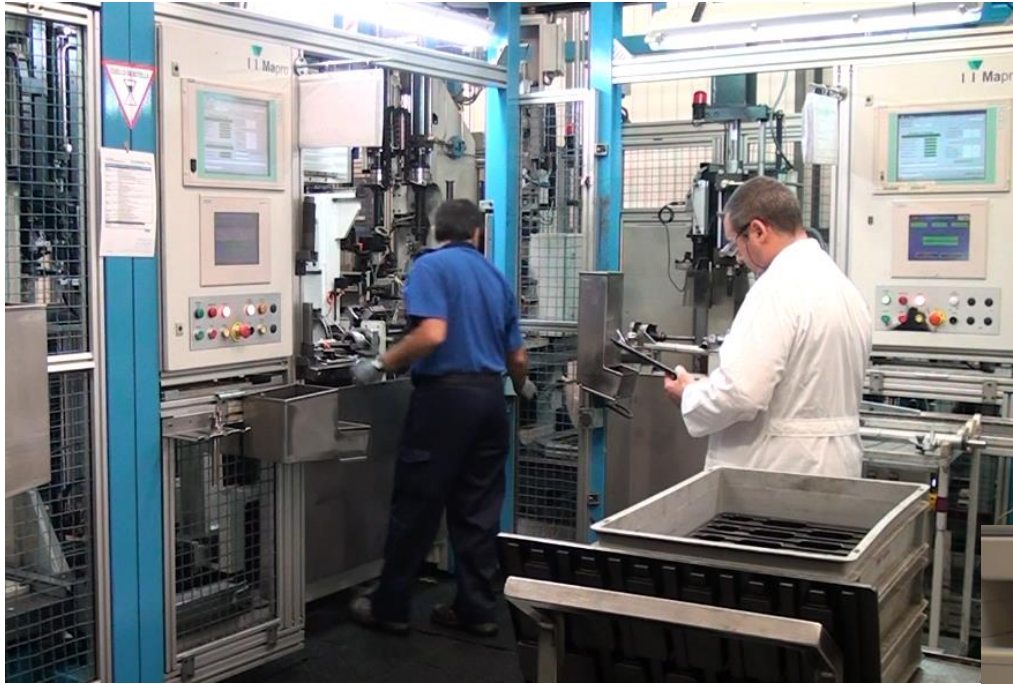


Coordinador
Seguridad y Salud
Laboral



Técnico PRL

Situación Inicial

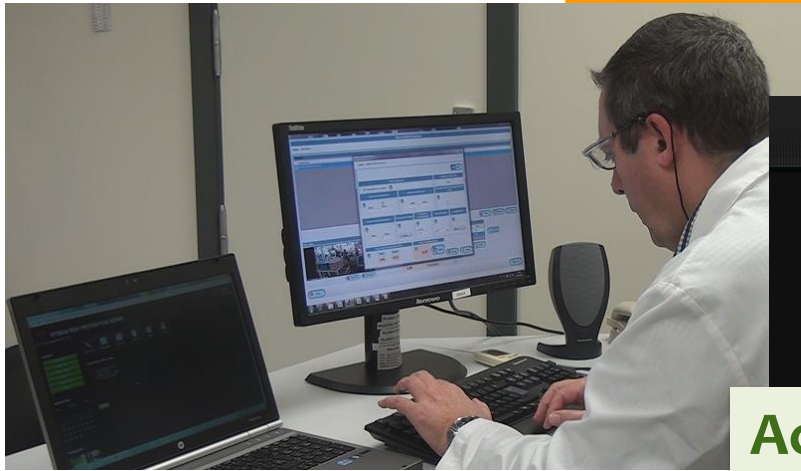


Observaciones y mediciones puntuales



Uso de la herramienta Ergomet para evaluar los riesgos ergonómicos

Aplicación Fit4Work en TRW



Acceso con credenciales personales

TRW ErgoPAL - RISK PREVENTION ADMIN
Safety Management Admin Main

Navigation

- Dashboard
- Safety Training Material

Configuration of Risk Types

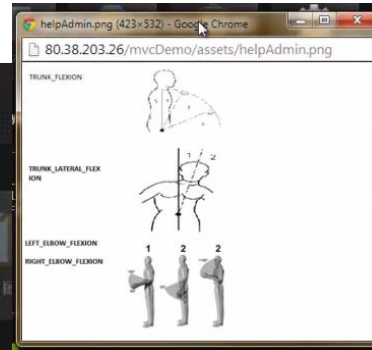
LEFT_ELBOW_FLEXION

TRUNK_FLEXION
TRUNK_LATERAL_FLEXION
RIGHT_ELBOW_FLEXION

Safety Events Calendar

Prev	May 2014							Next
Su	Mo	Tu	We	Th	Fr	Sa		
				1	2	3		
4	5	6	7	8	9	10		
11	12	13	14	15	16	17		
18	19	20	21	22	23	24		
25	26	27	28	29	30	31		

Submit Help



Selección de los tipos de riesgos deseables de ser vigilados

Aplicación Fit4Work en TRW



Acceso con credenciales personales

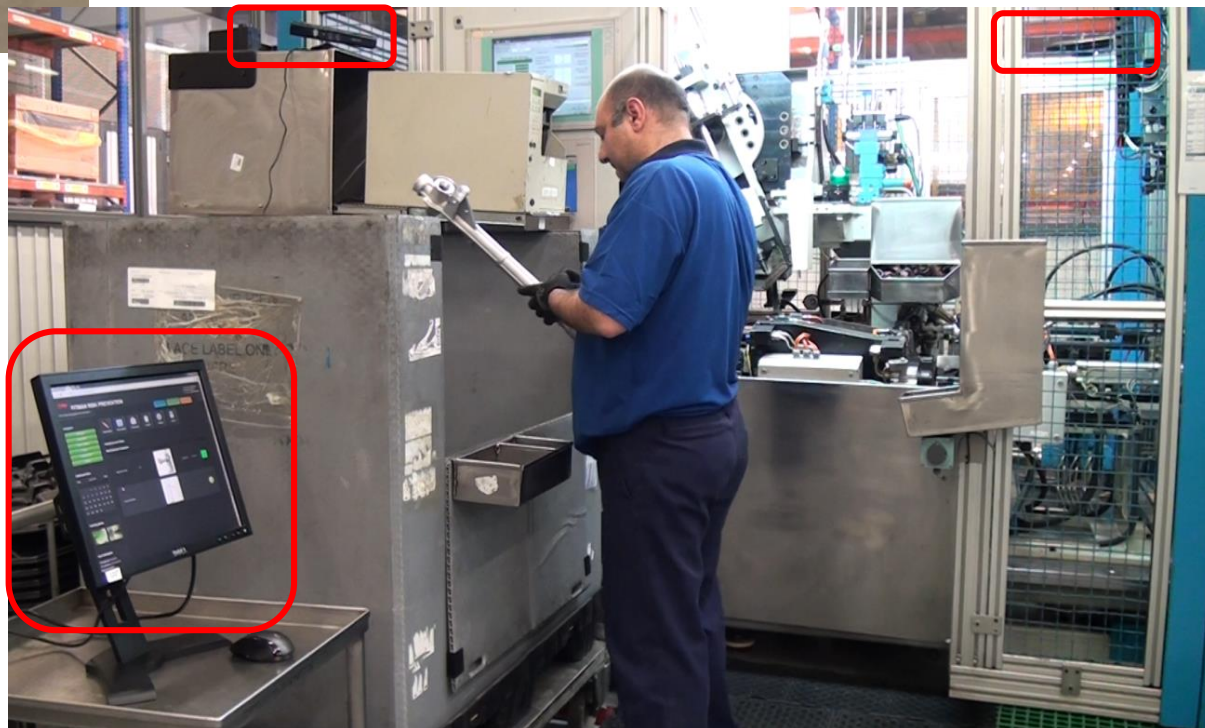
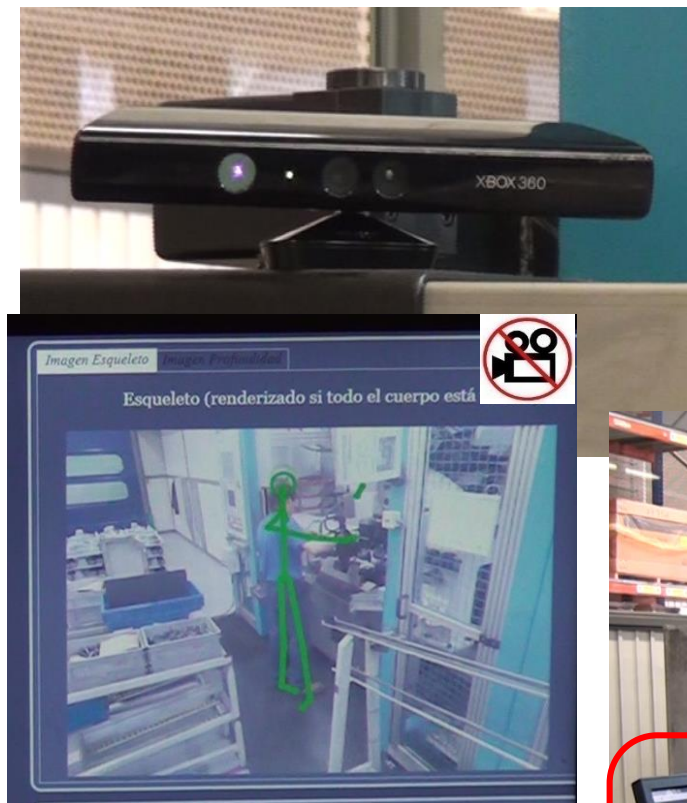


Selección VOLUNTARIA de los riesgos a controlar

Aplicación Fit4Work en TRW



Sistema de soporte
al operario



Aplicación Fit4Work en TRW



Interfaz del usuario

TRW ErgoPal - RISK PREVENTION
Safety Management For Workers

Welcome, Javier Iglesias!
My Account | Sign Out
You have 0 unread messages!

Detection | **Feedbacks** | Statistics

Navigation: Dashboard, Safety Training Material, Reports Sharing

Report Event | View Statistics | Check inbox | Task list | Settings | Upload

Instructions and Status

Posture Name	Posture Angle	Indication	Date(dd-mm-yy)	Time(24h)	Risk Level
Forward Bending	12.2862167683814		23-05-2014	18:15:19	Low Risk
Forward Bending	58.6016759721871		23-05-2014	16:40:35	Medium Risk
Forward Bending	69.2818179305786		23-05-2014	16:42:35	High Risk

Safety Events Calendar (May 2014):

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Aplicación Fit4Work en TRW



Notificaciones pop-up



TRW ErgoPal - RISK PREVENTION
Safety Management For Workers

My Account | Sign Out
You have 77 unread messages!

Detection | Feedbacks | Statistics | Messages

Navigation

- Dashboard
- Safety Training Material
- Reports Sharing

Report Event | View Statistic | Check inbox (77) | Task list | Settings | Upload

Instructions and Status

Ergonomic Risk Detection Configuration

Macro Types:

- Forward Bending
- Sideway Bending
- Left Arm Lifting
- Right Arm Lifting

Start | Reset

Safety Events Calendar

Prev | September 2014 | Next

Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

Useful Links

- FUTURE INTERNET PPP
- Fitman

You have just got 1 New Alerts! Please check Message Panel.

Aplicación Fit4Work en TRW

Consejos y Recomendaciones para corregir los movimientos



TRW ErgoPal - RISK PREVENTION
Safety Management For Workers

My Account | Sign Out
You have 77 unread messages!

Detection | Feedbacks | Statistics | Messages

Report Event | View Statistic | Check inbox (77) | Task list | Settings | Upload

Navigation

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- Safety Training Material
- Reports Sharing

Safety Events Calendar

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21	22	23	24	25	26	27
28	29	30				

Useful Links

- FUTURE INTERNET PPP
- Fitman

Worker Messages/Alarms Board

No.	Message Type	Movement Type	Action Abstract	Date	Open/Close Content	Delete
27	Alarm	Sideway Bending	Evite las malas posturas o postu	2014-09-02 13:24:40.0	+	x
26	Alarm	Sideway Bending	Evite las malas posturas o postu	2014-09-02 13:24:34.0	-	x
RECOMENDACIONES: Evite las malas posturas o posturas muy forzadas y permanecer un tiempo prolongado en ellas						
Nº25	Alarm	Sideway Bending	Evite las malas posturas o po:	2014-09-02 13:24:28.0	+	x
Nº23	Alarm	Sideway Bending	Evite las malas posturas o po:	2014-09-02 13:21:35.0	+	x
Nº22	Alarm	Sideway Bending	Evite las malas posturas o po:	2014-09-02 13:21:29.0	+	x

Previous ... 11 **12** (Total 12 pages , 115 Messages.)

Aplicación Fit4Work en TRW



Aplicación Fit4Work en TRW

Navigation

- Dashboard
- Safety Events
- Events Calendar
- Pages
- Training Library
- Settings

Additional Panel

Prev May 2014 Next

Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	
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11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Training gallery

Risk Information

Instructions and Status

Risk Detection Statistics

Risk Level Distribution

Risk Zones	Average Session Results	Current Session Results
Risk Zone 1	~15%	~32%
Risk Zone 2	~42%	~60%
Risk Zone 3	~28%	~8%
Risk Zone 4	~5%	0%

Estadísticas



Riesgos puntuales

Message Board

No.	Message Type	Movement Type	Action Abstract	Date	Open/Close	Content	Delete
27	Alarm	Sideway Bending	Evite las malas posturas o post.	2014-09-02 13:24:40.0	+		x
NEW 26	Alarm	Sideway Bending	Evite las malas posturas o po:	2014-09-02 13:24:34.0	+	Click to open message	x
NEW 25	Alarm	Sideway Bending	Evite las malas posturas o po:	2014-09-02 13:24:28.0	+		x
NEW 23	Alarm	Sideway Bending	Evite las malas posturas o po:	2014-09-02 13:21:35.0	+		x
NEW 22	Alarm	Sideway Bending	Evite las malas posturas o po:	2014-09-02 13:21:29.0	+		x

Previous ... 11 12 (Total 12 pages , 115 Messages.)

ANÁLISIS PORMENORIZADO DE LA INFORMACIÓN

Safety Events Calendar

Prev September 2014 Next

Fr	Sa
	5 6
1 12 13	
8 19 20	
5 26 27	

Useful Links

- Instalación sencilla
- Configuración rápida
- Intuitivo y fácil de manejar

Sistema de Soporte a la CORRECCIÓN DE MALAS POSTURAS Y MOVIMIENTOS FORZADOS



Herramienta de diseño de ESTRATEGIAS DE PREVENCIÓN FLEXIBLES Y PERSONALIZADAS



Video del Caso de Referencia



https://www.youtube.com/watch?v=sNiDc0Y9c_E

TRW

innovalia
ASSOCIATION

WHAT IS IT?

Watify is an awareness-raising campaign funded and supported by the European Commission targeted at **European SMEs & Regional and local authorities.**

Its core objective is **to stimulate the modernisation of European companies of different sectors through digital transformation and the adoption of advanced technologies.**

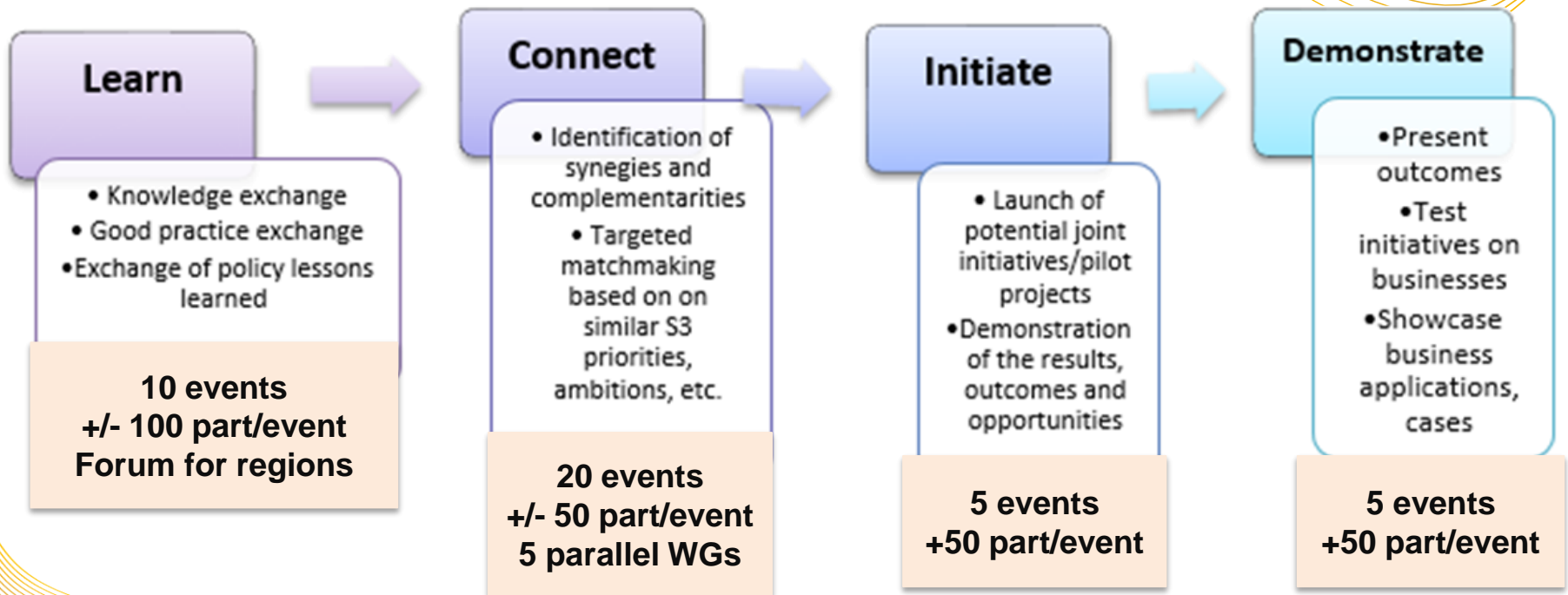
WATIFY Actions

240 AWARENESS EVENTS in regions and cities all around Europe promoting:

- The uptake of advanced technologies and digital transformation.
- Good business modernisation cases.
- ‘Open innovation’ and collaboration between innovative SMEs and large companies.
- Best policy practices among regional and local authorities.
- Opportunities offered by different European instruments in the areas of digital and advanced technologies.
- Better information exchange between public and private stakeholders at regional level.

Cross-Regional Matchmaking Events

The events will bring together actors from participating regions with the goal of helping to catalyse the identification and development of cross-regional joint initiatives/pilot projects and inter-regional partnerships **through a process of 4 phases:**



WATIFY Launch Event

WHAT?

An event for the WATIFY campaign launch where networking and visibility are at the core of the event

WHO?

150 participants, key digital and KETs stakeholders, experts, national and regional policy makers and business representatives

WHEN?

10 November 2016, 09.00 – 18.00

WHERE?

Brussels, Bloom Hotel

Eskerrik Asko!

June Sola

jsola@innovalia.org