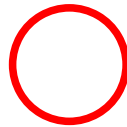


Punto de partida = Ourense

Delimitación de frontera

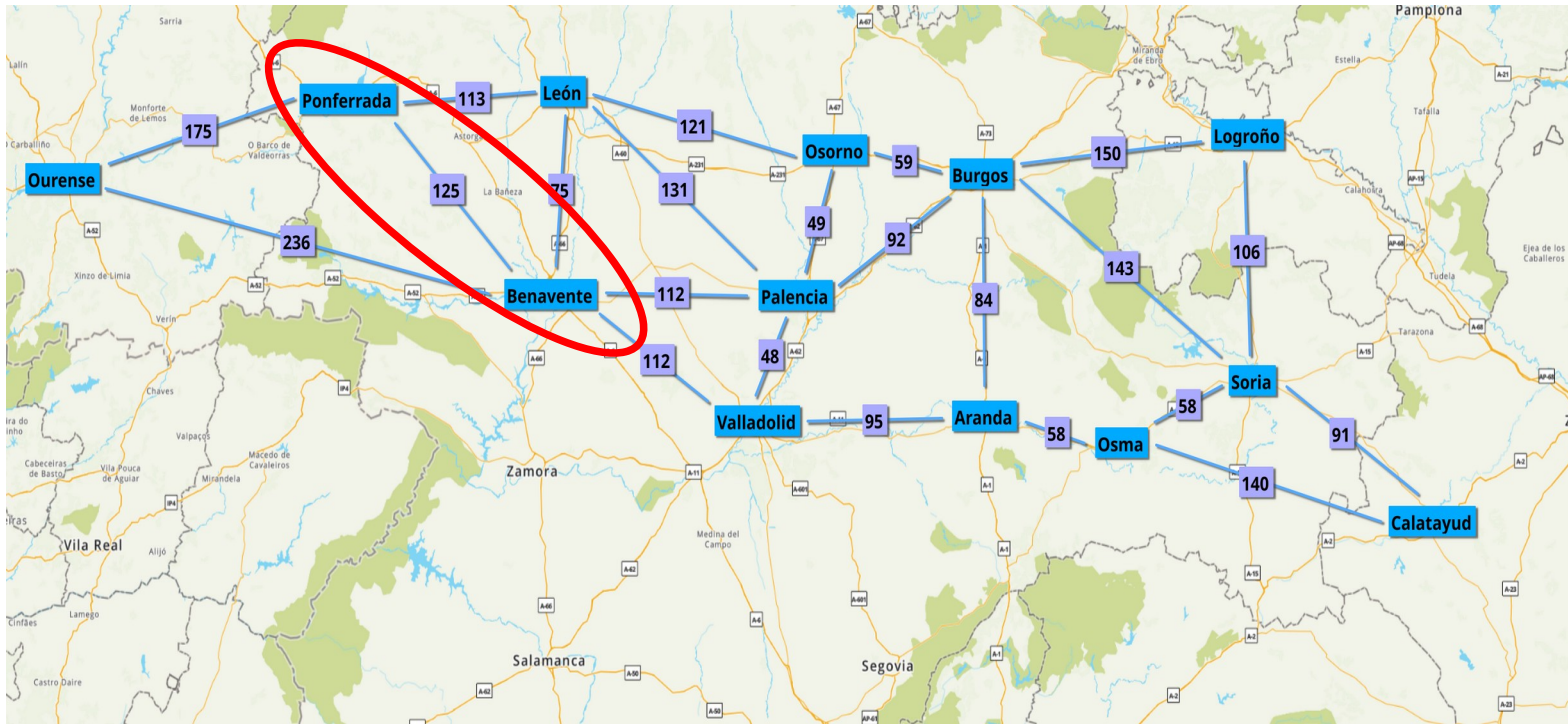


Nodo a expandir



Descarte por haber solución con menos coste

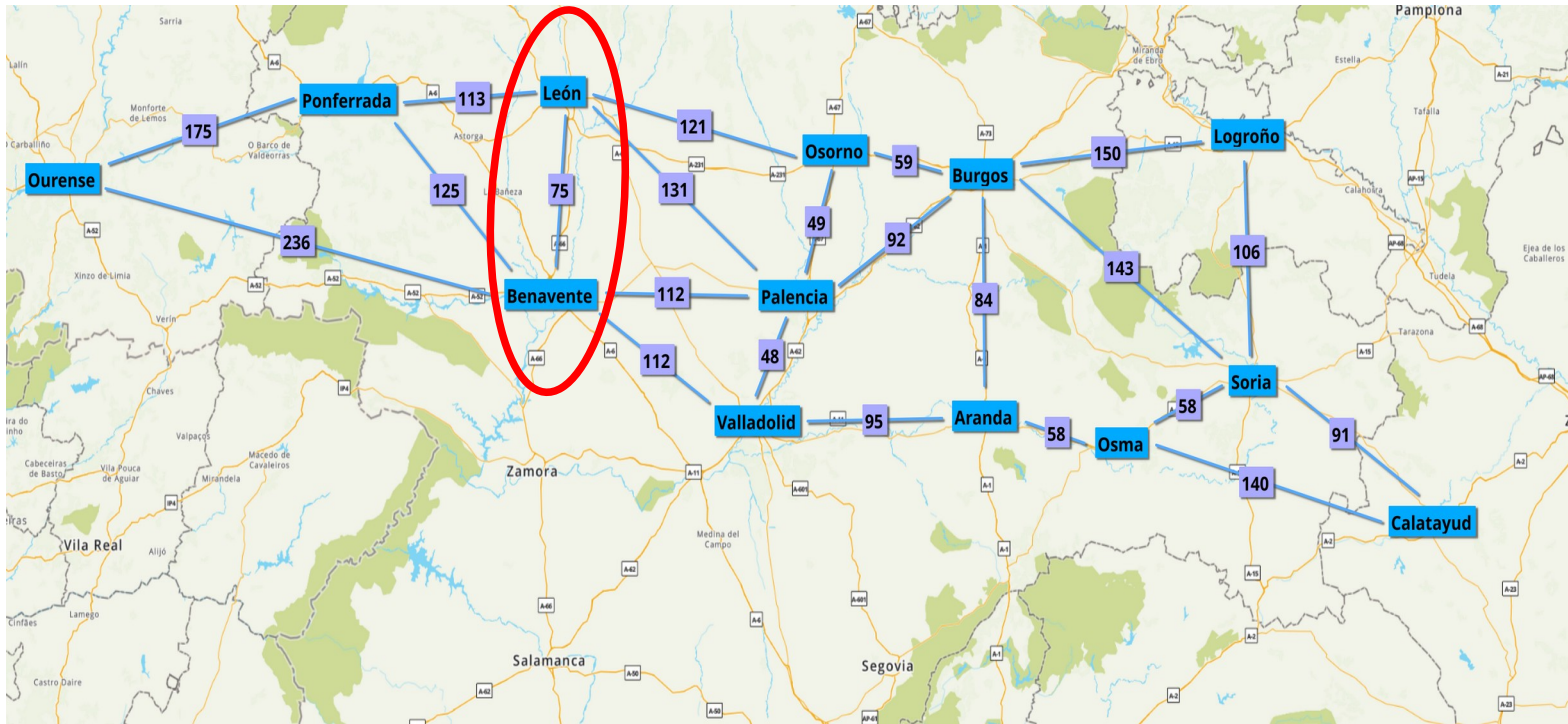




$$\text{Ourense} \left\{ \begin{array}{l} \text{Ponferrada}_{OU}^{175} \\ \text{Benabente}_{OU}^{236} \end{array} \right.$$

$$F = \text{Ponferrada}_{OU}^{175}, \text{Benabente}_{236}^{236}$$

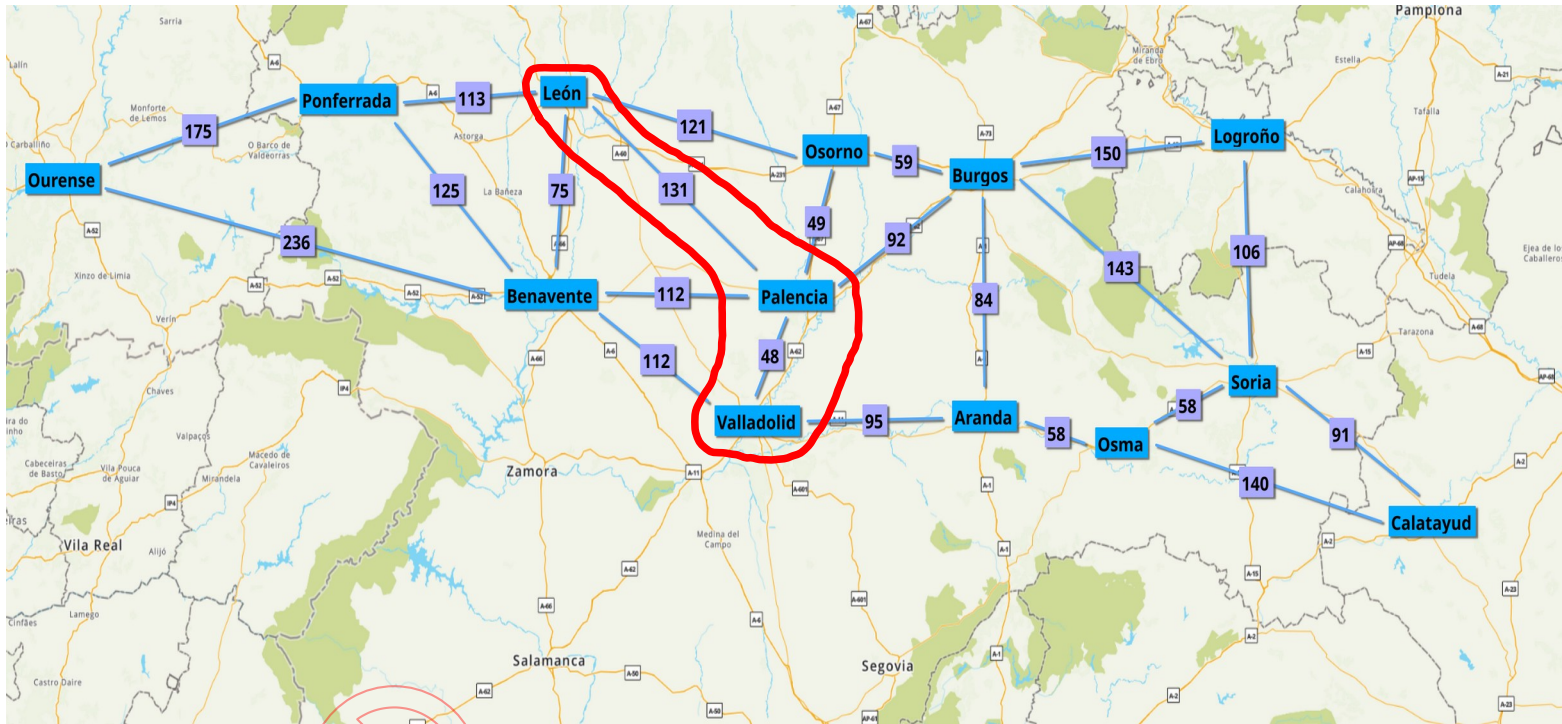
$$C = \text{Ourense}, \text{Ponferrada}_{OU}^{175}, \text{Benabente}_{OU}^{236}$$



$$Ponferrada \left\{ \begin{array}{l} León^{288} \\ Ponf \\ Benabente^{300} \\ Ponf \end{array} \right.$$

$$F = \text{Benabente}^{236}_{236}, León^{288}_{Ponf}$$

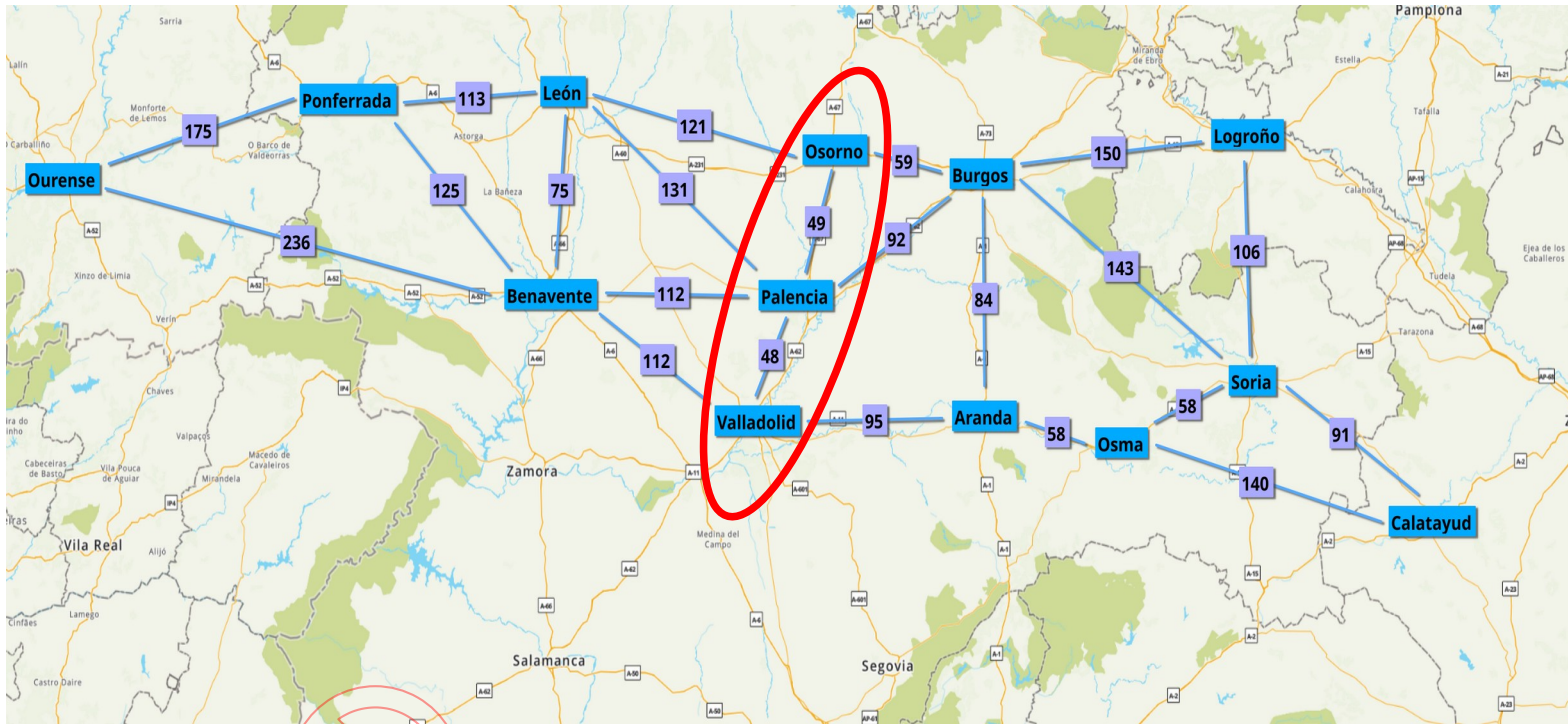
$$C = Ourense, Ponferrada^{175}_{OU}, Benabente^{236}_{OU}, León^{288}_{Ponf}$$



$$\begin{array}{l}
 \text{Benabente} \left\{ \begin{array}{l}
 \text{Ponferrada}^{361} \\
 \text{León}^{311} \\
 \text{Palencia}^{348} \\
 \text{Valladolid}^{348}
 \end{array} \right.
 \end{array}$$

$$F = \text{León}^{288}, \text{Palencia}^{348}, \text{Valladolid}^{348}$$

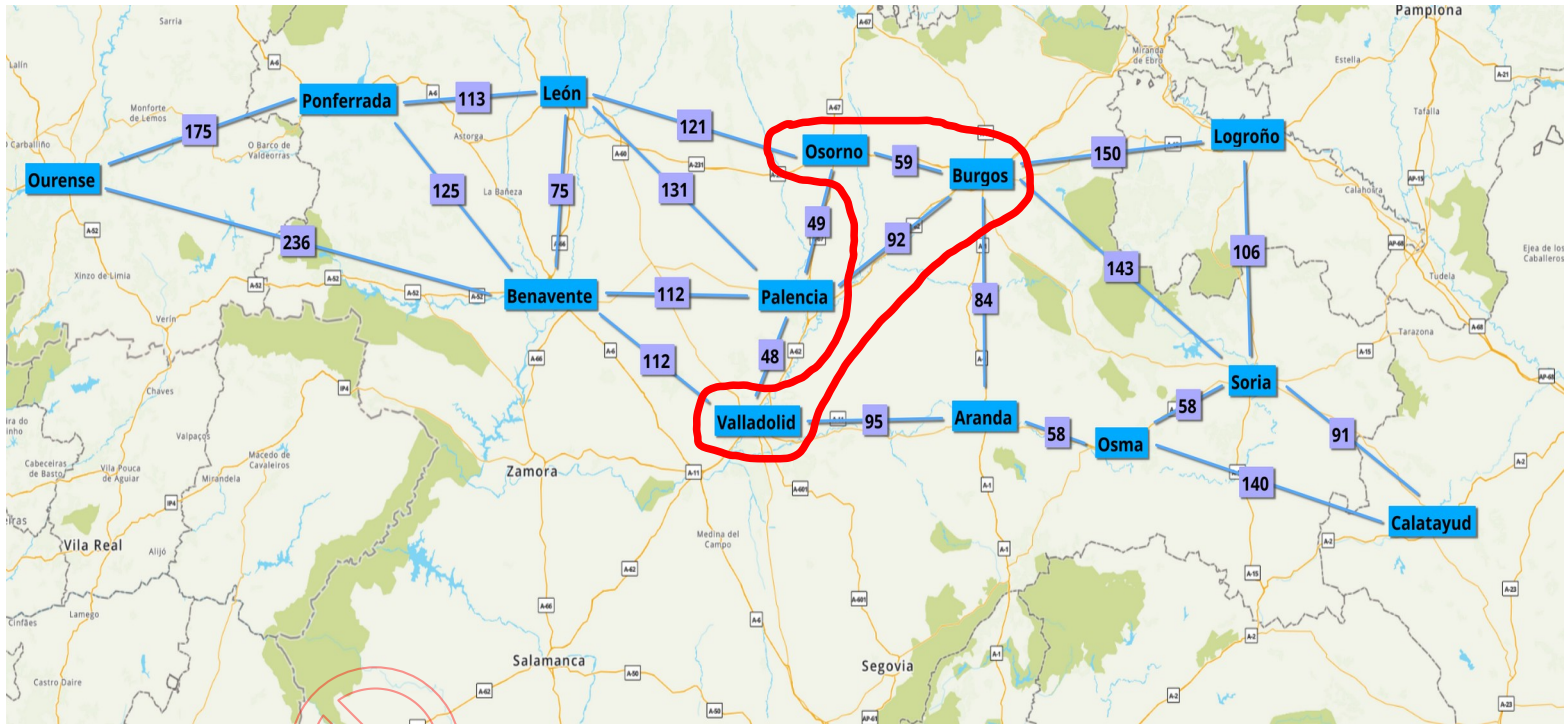
$$C = \text{Ourense}, \text{Ponferrada}^{175}, \text{Benabente}^{236}, \text{León}^{288}, \text{Palencia}^{348}, \text{Valladolid}^{348}$$



$\left\{ \begin{array}{l} \text{Benabente}^{363} \\ \text{Osorno}^{409} \\ \text{Palencia}^{419} \end{array} \right.$
 León

$F = \text{Palencia}^{348}_{\text{Ben}}, \text{Valladolid}^{348}_{\text{Ben}}, \text{Osorno}^{409}_{\text{León}}$

$C = \text{Ourense}, \text{Ponferrada}^{175}_{\text{OU}}, \text{Benabente}^{236}_{\text{OU}}, \text{León}^{288}_{\text{Ponf}}, \text{Palencia}^{348}_{\text{Ben}}, \text{Valladolid}^{348}_{\text{Ben}}, \text{Osorno}^{409}_{\text{León}},$

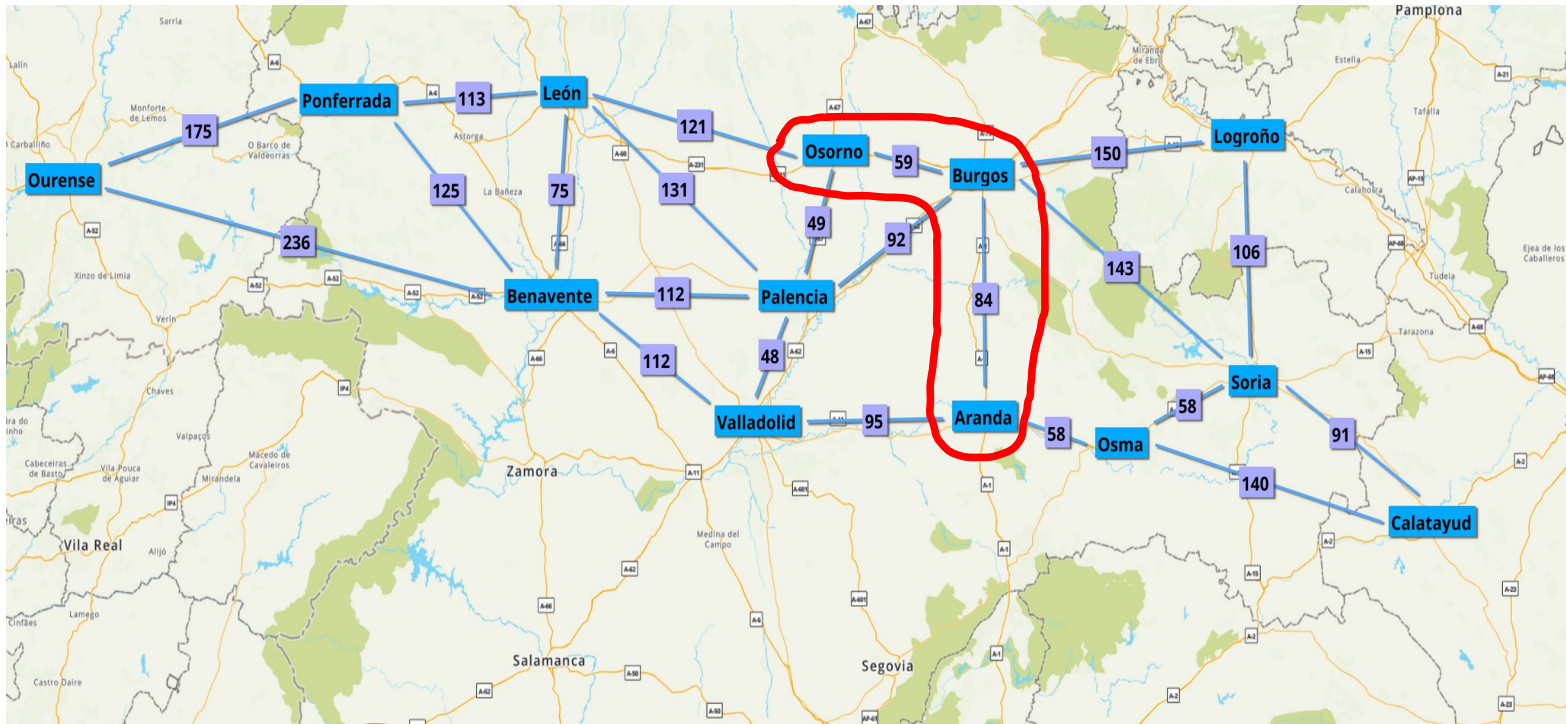


$\left. \begin{array}{l} \text{Palencia} \\ \text{Palencia} \\ \text{Palencia} \end{array} \right\} \begin{array}{l} \text{Osorno}^{397} \\ \text{Burgos}^{440} \\ \text{Valladolid}^{396} \end{array}$

$F = \text{Valladolid}^{348}_{\text{Ben}}, \text{Osorno}^{409}_{\text{León}}, \text{Burgos}^{440}_{\text{Palencia}}$

$C = \text{Ourense}, \text{Ponferrada}^{175}_{\text{OU}}, \text{Benabente}^{236}_{\text{OU}}, \text{León}^{288}_{\text{Ponf}}, \text{Palencia}^{348}_{\text{Ben}}, \text{Valladolid}^{348}_{\text{Ben}}, \text{Osorno}^{409}_{\text{León}},$

$\text{Burgos}^{440}_{\text{Palencia}}$

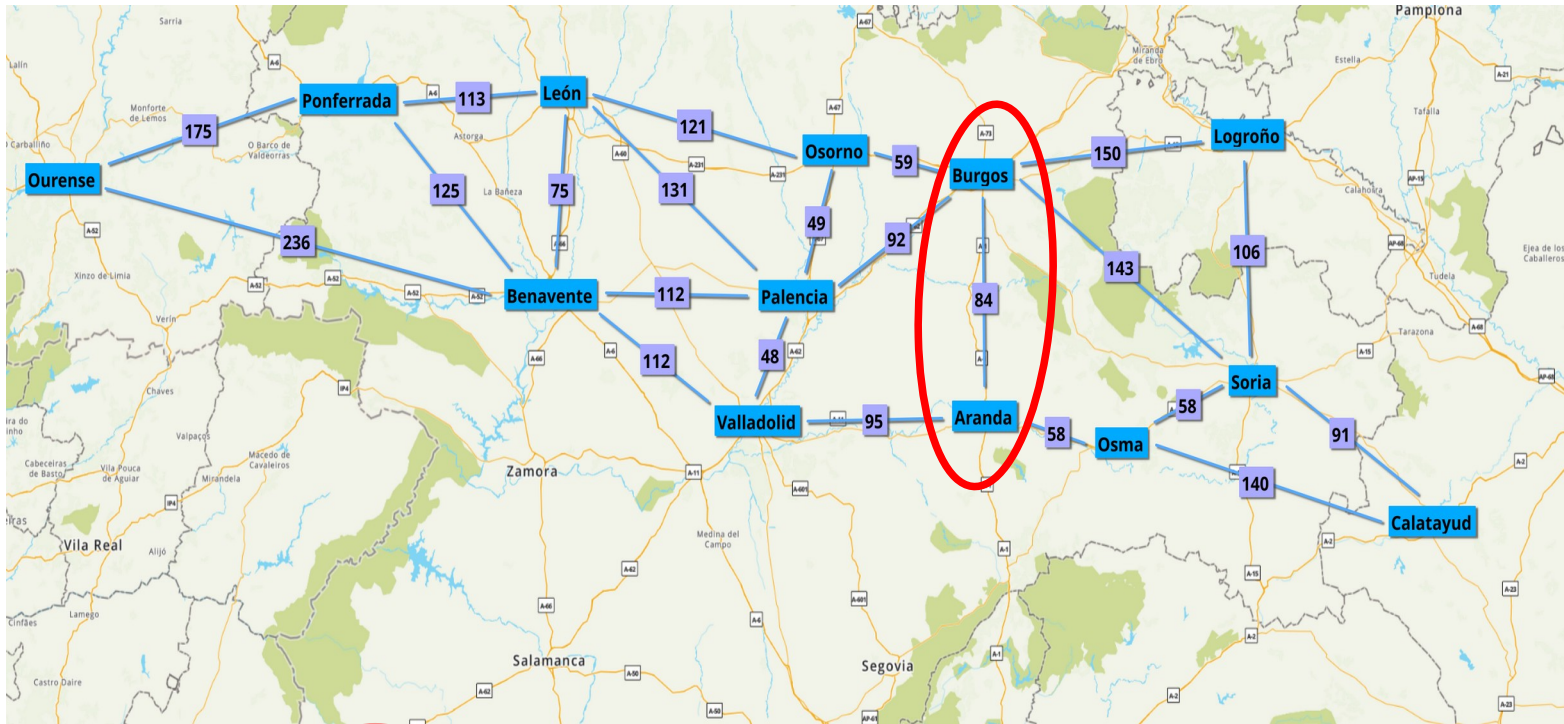


$$\begin{array}{l}
 \text{Valladolid} \left\{ \begin{array}{l} \text{Palencia}^{396} \\ \text{Valladolid} \\ \text{Aranda}^{443} \\ \text{Valladolid} \end{array} \right.
 \end{array}$$

$$F = \text{Osorno}^{409}_{\text{León}}, \text{Burgos}^{440}_{\text{Palencia}}, \text{Aranda}^{443}_{\text{Valladolid}}$$

$$C = \text{Ourense}, \text{Ponferrada}^{175}_{\text{OU}}, \text{Benabente}^{236}_{\text{OU}}, \text{León}^{288}_{\text{Ponf}}, \text{Palencia}^{348}_{\text{Ben}}, \text{Valladolid}^{348}_{\text{Ben}}, \text{Osorno}^{409}_{\text{León}},$$

$$\text{Burgos}^{440}_{\text{Palencia}}, \text{Aranda}^{443}_{\text{Valladolid}}$$

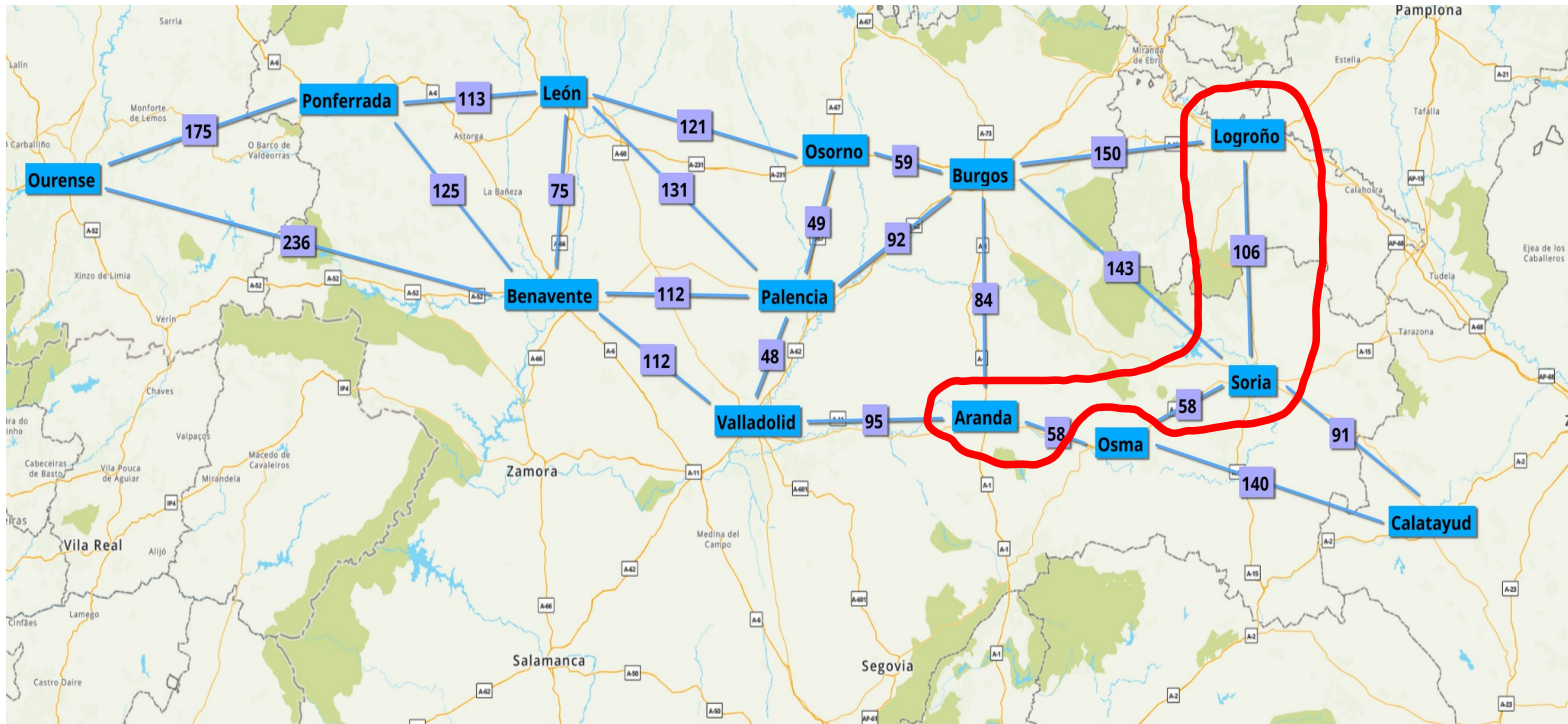


$\left\{ \begin{array}{l} \text{Palencia}^{413} \\ \text{Osorno} \\ \text{Burgos}^{468} \\ \text{Osorno} \end{array} \right.$

$F = \begin{array}{l} \text{Burgos}^{440} \\ \text{Palencia} \end{array}, \begin{array}{l} \text{Aranda}^{443} \\ \text{Valladolid} \end{array}$

$C = \text{Ourense}^{175}, \text{Ponferrada}^{236}, \text{Benabente}^{288}, \text{León}^{348}, \text{Palencia}^{348}, \text{Valladolid}^{409}, \text{Osorno}^{409},$
OU OU Ponf Ben Ben León

$\text{Burgos}^{440}, \text{Aranda}^{443}$
Palencia Valladolid

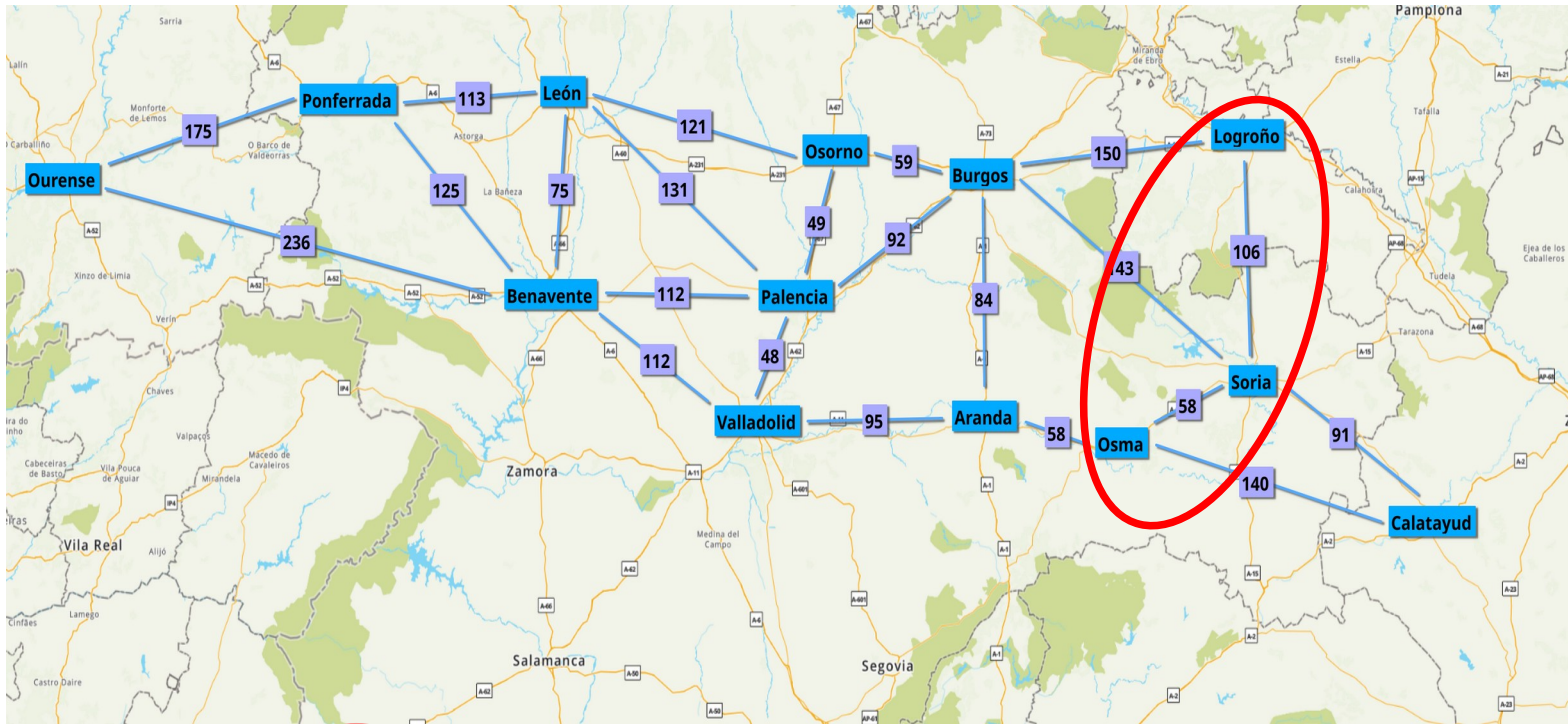


$$Burgos \left\{ \begin{array}{l} \text{Logroño}^{590} \\ \text{Burgos} \\ \text{Soria}^{583} \\ \text{Burgos} \\ \text{Aranda}^{524} \\ \text{Burgos} \end{array} \right.$$

$$F = \text{Aranda}^{443}_{\text{Valladolid}}, \text{Logroño}^{590}_{\text{Burgos}}, \text{Soria}^{583}_{\text{Burgos}}$$

$$C = \text{Ourense}, \text{Ponferrada}^{175}_{\text{OU}}, \text{Benabente}^{236}_{\text{OU}}, \text{León}^{288}_{\text{Ponf}}, \text{Palencia}^{348}_{\text{Ben}}, \text{Valladolid}^{348}_{\text{Ben}}, \text{Osorno}^{409}_{\text{León}},$$

$$\text{Burgos}^{440}_{\text{Palencia}}, \text{Aranda}^{443}_{\text{Valladolid}}, \text{Logroño}^{590}_{\text{Burgos}}, \text{Soria}^{583}_{\text{Burgos}}$$

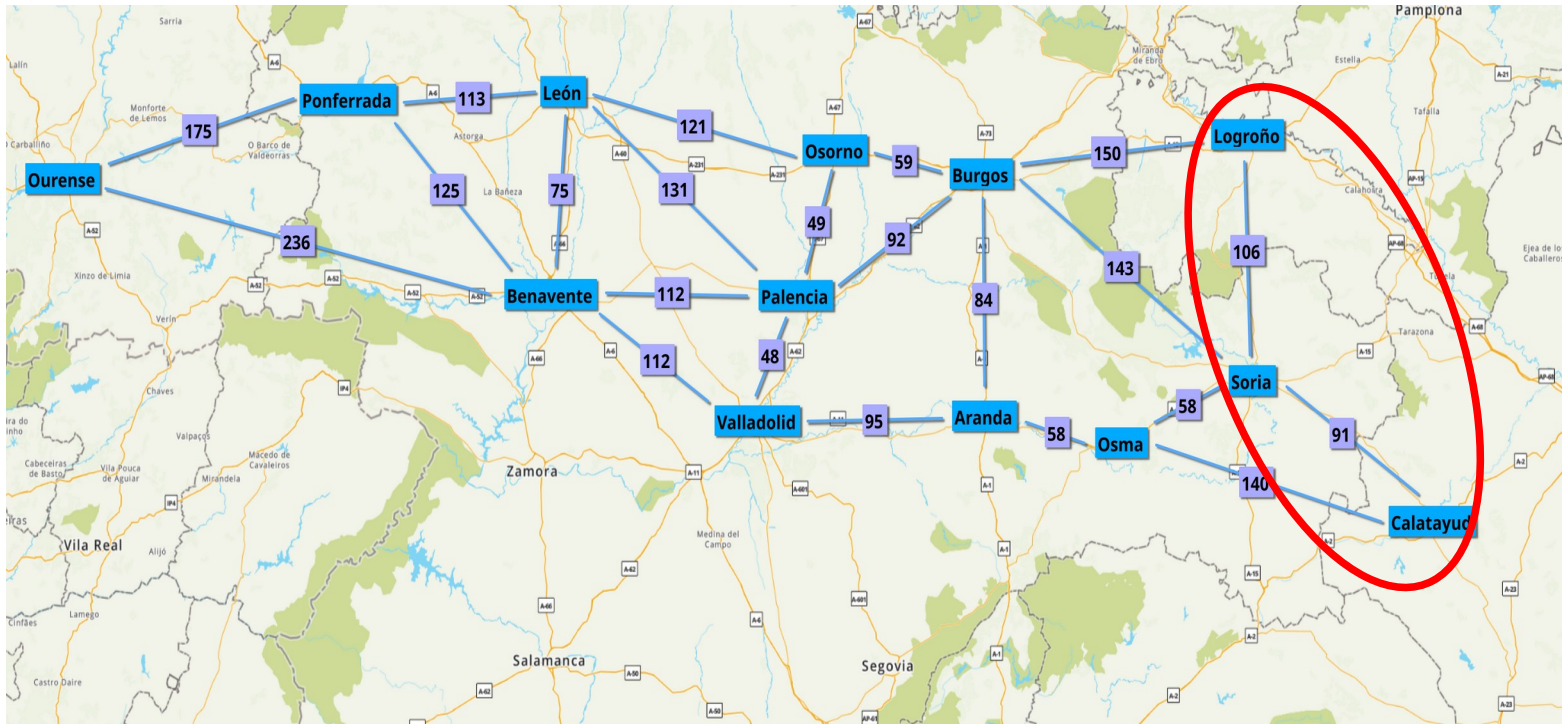


Aranda { ~~Burgos~~⁵²⁷
Aranda
Osma⁵⁰¹
Aranda

$F = \text{Logroño}^{\text{Burgos } 590}, \text{Soria}^{\text{Burgos } 583}, \text{Osma}^{\text{Aranda } 501}$

$C = \text{Ourense}^{\text{OU } 175}, \text{Ponferrada}^{\text{OU } 236}, \text{León}^{\text{Ponf } 288}, \text{Palencia}^{\text{Ben } 348}, \text{Valladolid}^{\text{Ben } 348}, \text{Osorno}^{\text{León } 409},$

$\text{Burgos}^{\text{Palencia } 440}, \text{Aranda}^{\text{Valladolid } 443}, \text{Logroño}^{\text{Burgos } 590}, \text{Soria}^{\text{Burgos } 583}, \text{Osma}^{\text{Aranda } 501}$

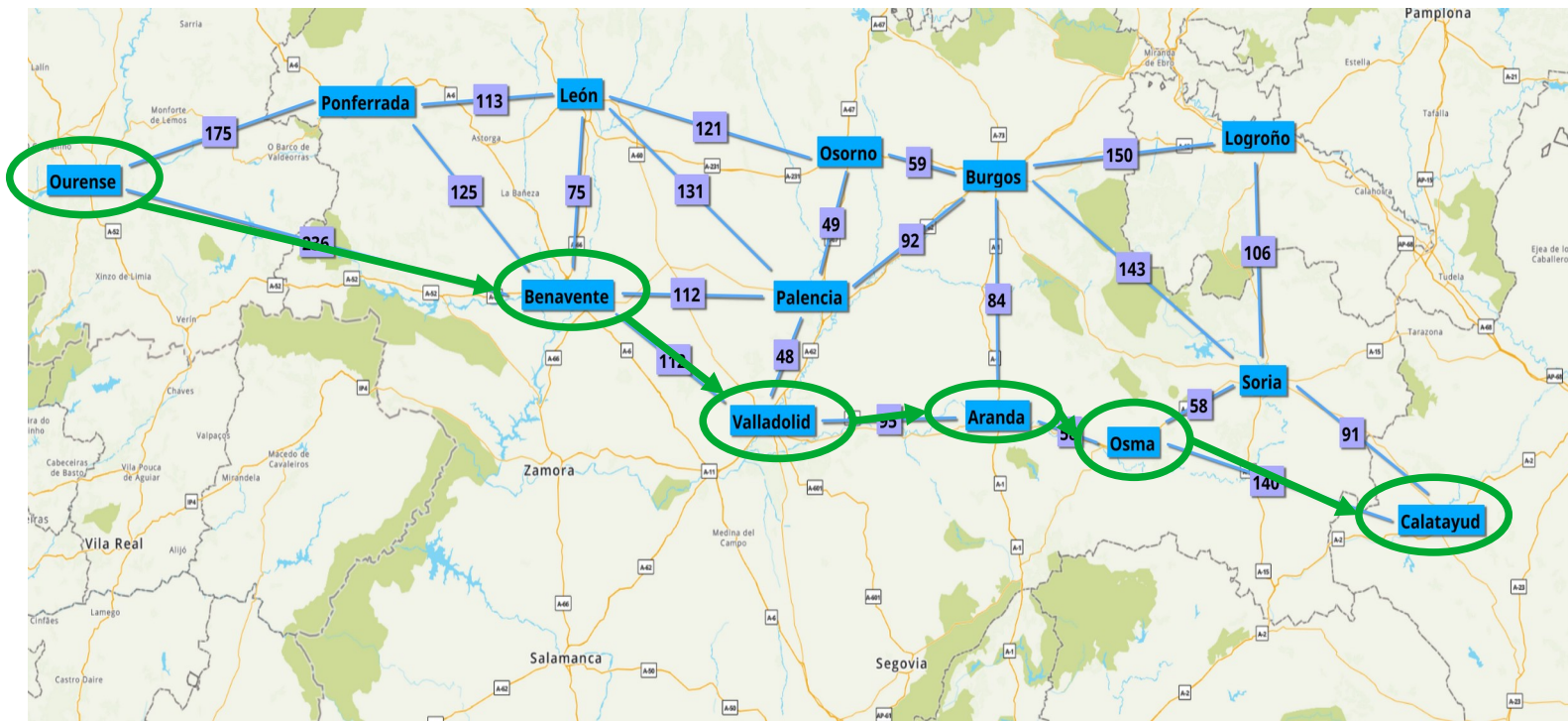


$$Osma \left\{ \begin{array}{l} Soria^{559} \\ Osma \\ Calatayud^{641} \\ Osma \end{array} \right.$$

$$F = \underset{\text{Burgos}}{\text{Logroño}^{590}}, \underset{\text{Osma}}{Soria^{559}}, \underset{\text{Osma}}{Calatayud^{641}}$$

$$C = \underset{OU}{Ourense}, \underset{OU}{Ponferrada}^{175}, \underset{OU}{Benabente}^{236}, \underset{Ponf}{León}^{288}, \underset{Ben}{Palencia}^{348}, \underset{Ben}{Valladolid}^{348}, \underset{León}{Osorno}^{409},$$

$$\underset{Palencia}{Burgos}^{440}, \underset{Valladolid}{Aranda}^{443}, \underset{Burgos}{Logroño}^{590}, \underset{Burgos}{Soria}^{583}, \underset{Aranda}{Osma}^{501}, \underset{Osma}{Soria}^{559}, \underset{Osma}{Calatayud}^{641}$$



$Calatayud^{641} = Destino !!$
Osma

$F = Logroño^{590}, Soria^{556}, Calatayud^{641}$
Burgos Osma Osma

